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Correlations Between Corporate Governance, Financial Performance, and Market Value

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Abstract

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MS, Zagazig University, 2005

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Doctoral Study Submitted in Partial Fulfillment

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Abstract

Corporate governance can play a significant role in financial market stability and economic development. Corporate governance scholars have provided controversial results with respect to the relationships between corporate governance and both corporate financial performance and market value. Based on agency theory and institutional theory, the purpose of this correlational study was to investigate the relationship between corporate governance mechanisms, financial performance, and market value in Kingdom of Saudi Arabia's 116 firms from 2010 to 2014. Financial performance was measured by return on assets and return on equity, while market value was measured by Tobin's q. Corporate governance mechanisms involved in this study were board size, board independence, board committees, ownership structure, and executive compensation. The financial statements and corporate governance mechanisms collected from the websites of sampled firms and the Saudi stock market (Tadawul). The findings of multiple regression tests revealed a statistically significant relationship between corporate governance mechanisms and both corporate financial performance and market value. This study may contribute to social change by building confidence in the Saudi capital market and improving the lives of stakeholders and community in general. The results may help business leaders understand the influence of corporate governance on their firms' success and the country's growth. Academic researchers, investors, regulatory bodies, practitioners, and experts in the area of corporate governance may benefit as well.

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Section 1: Foundation of the Study

Many international leaders of known firms have been involved in famous financial scandals, such as the leaders of Enron, Anderson, WorldCom, Xerox, Parmalat, Merrill Lynch, Maxwell, Allied Irish Bank, and Sellafield (Alimehmeti & Paletta, 2014; Cretu, 2012). The financial scandals caused stock markets to drop sharply, employees to lose their jobs, capital providers to lose their investments, and tax collections to shrink. A common cause for this failure resulted from weak internal control which arises from poor corporate governance of organizations (Darus & Mohamed, 2011). Furthermore, auditors' failure to reveal inadequacies in financial records and increase reliability and confidence in the use of financial reports was significant factor among these scandals (Bonna, 2011). The financial scandals have placed a significant doubt on the abilities of stock market authorities, policy makers, and professional accounting and auditing associations to regulate the proper corporate behavior (Adegbite, 2012). These high-profile corporate failures intensified the debate on the effectiveness of corporate governance as a tool for improving firm performance and protecting investors (Mangunyi, 2011).

The financial scandals and several cases of corporate mismanagement have led to increasing attention on corporate governance rules and regulations, in close relation with business ethics issues (Mangunyi, 2011; Roudaki, 2013). In addition, the financial crises have served as justification for new rules and legislations to regulate corporate governance practices in developed and developing countries (Jen, 2014). The financial

scandals and financial crises resulted in the legislators and regulators of most nations seeking to strengthen and enhance their corporate governance rules and regulations, disclosure, and transparency levels (Lopatta, & Kaspereit, 2014; Pandya, 2011; Sáenz González & García-meca, 2014). For example, United States legislators enacted the Sarbanes-Oxley Act in 2002. As per the Sarbanes-Oxley Act, stock exchanges' administrators should impose corporate governance rules and regulations on listed companies regarding audit independence, board independence, and reliability of corporate disclosures (Ali, 2014; Alimehmeti & Paletta, 2014).

The legislators of Kingdom of Saudi Arabia (KSA) passed corporate governance regulations in 2006. These regulations constitute the governing principles for all firms listed on Saudi Capital Market-Tadawul (KSA's Corporate Governance Regulations, 2006). The legislators and regulators of many other markets re-examined their legislation and regulations within the framework of corporate governance, including developing markets (Ergin, 2012; Logan & Gooden, 2014). The efficacy of corporate governance regulations can be different in developed and developing countries due to the differences in political, cultural, and economic backgrounds. The legislation of corporate governance has evolved considerably, becoming the real addition that the companies' managers and board of directors can demonstrate, in disclosures to their stakeholders (Cretu, 2012).

Background of the Problem

The key objective of corporate governance is to achieve long-term stockholder value, as the firms' leaders adopting best practices in corporate governance may achieve

better financial performance and market value for their companies (Al-Matari, Al-Swidi, & Fadzil, 2014; Ghazali, 2010; Meesiri, 2014). A robust system of corporate governance is considered an important tool for mitigating the conflict of interests between stakeholders and management (Pandya, 2011). Researchers affirm that corporate governance is acknowledged as a crucial element in financial markets stability and economic development (Bonna, 2011; Mangunyi, 2011).

Corporate governance is needed to protect the interest of all stakeholders, including shareholders. Corporate governance secures confidence for not only shareholders, but also other stakeholders, such as (a) government, (b) employees, (c) suppliers, and (d) customers in ensuring the firms' leaders are accountable for their decisions. Weak-governance companies have higher input costs, lower labor productivity, lower equity return, lower value, and lower operating performance than good-governance companies (Zaharia & Zaharia, 2012). On the contrary, good corporate governance guarantees that shareholders will get the best performance for their investment, resulting in wealth increase and general economic growth (Cretu, 2012).

Corporate governance regulations include standards and rules for helping the managers of publicly traded companies to ensure their adherence and compliance with the best corporate governance practices and systems that would ensure the protection of both shareholders' rights and other stakeholders' rights. These regulations alleviate the conflict of interests between the principal and agent (KSA's Corporate Governance Regulations, 2006). Corporate governance monitors the relationship between the firms

and all their stakeholders (Adiloglu &Vuran, 2012). Corporate governance consists of a set of mechanisms for mitigating the principal-agent problem and improving stockholders' welfare (Ergin, 2012; Habbash & Bajaher, 2014). Although countries' regulators and legislators have taken many measures to mitigate conflict of the interest, financial crises, and corporate scandals, more research is needed (Ferreira Caixe & Krauter, 2014; Starbuck, 2014).

The effect of corporate governance mechanisms on corporate performance and market value of corporations has gained widespread prominence in the stock market economy (Adiloglu & Vuran, 2012). Management scholars examined the relationship of corporate governance with firm performance and market value. However, the findings are mixed and not convergent (Mangunyi, 2011). Whether corporate governance enhances company performance and market value is another question to which the answer is not clear; with no concurrence among researchers (Ergin, 2012).

In this study, I sought to investigate the impact of corporate governance on both corporate financial performance and market value of publicly listed companies in KSA to identify whether strong corporate governance implementation leads to better financial performance and market value. The pressing need for mitigating the conflict of interest between management and different stakeholders, as well as restoring the reliability and confidence in global financial markets support and motivate this study. The focus for this study was on corporate governance mechanisms in areas of control and incentives, as well as corporate financial performance and market value by examining the relationship

between corporate governance, and financial performance and market value. The findings from this study may be generalized to other publicly listed companies in KSA.

Problem Statement

Investors and regulators have become more interested in the rules and regulations of corporate governance because of the high-profile collapse of a number of large corporations in the last decade of the 20th century. In addition, the world financial crisis of 2008 has led to a pressing need for establishing sound corporate governance practices as an emergent demand (Pandya, 2011). Therefore, management scholars have focused on the relationships between corporate governance and (a) financial performance, and (b) company value (Dhamadasa, Gamage, & Herath, 2014). The general business problem is that there is a lack of consensus with respect to the relationships between corporate governance, and (a) financial performance, and (b) company value (Coskun & Sayilir, 2012; Mangunyi, 2011; Nicolaescu, 2012; Vintila & Gherghina, 2012). These divergent findings may undermine business leaders' adherence and compliance with the best corporate governance practices (Coskun & Sayilir, 2012). The specific business problem is that some business leaders of KSA publicly listed companies do not have sufficient knowledge of the relationship between corporate governance, financial performance, and market value to determine the relevance and importance of implementing corporate governance rules and regulations.

Purpose Statement

The purpose of this quantitative correlational study was to examine the relationship between five mechanisms of corporate governance and (a) financial performance, and (b) market value in KSA's 116 companies for the time period 2010 to 2014. The corporate governance independent variables are (a) board size, (b) board independence, (c) board committees, (d) shareholding ownership structure, and (e) executive compensation. The dependent variables are corporate financial performance and market value. The implications for positive social change include the potential clarification of the importance of corporate governance on corporate financial performance and market value. Findings from this study may help firms' leaders and boards to understand which variables influence their companies' performance and market value. Also, the legislators may benefit from the findings of this study in identifying the corporate governance mechanisms that can promote economic growth for the benefit of society.

Nature of the Study

There are three different types of approaches for conducting research: qualitative, quantitative, and mixed methods (Frels & Onwuegbuzie, 2013). Qualitative methodology is useful for exploring and understanding a corporate governance phenomenon. However, qualitative methodology is less suitable for the purpose of this study. Qualitative design findings cannot be replicated, and generalizations to broader groups of organizations or people are limited (Tacq, 2011).

The quantitative researcher focuses on testing hypotheses and theories. Quantitative research is useful for answering questions (a) how much, (b) how many, (c) where, (d) who, and (e) what is the relationship between specific variables (independent and dependent variables) (Frels & Onwuegbuzie, 2013). A quantitative method was the most suitable for this study because the purpose of this study was to examine the relationship between corporate governance and the financial performance and market value of the publicly listed companies in KSA.

The correlational design was best for this study because the purpose for the study was examining the relationship among known variables (Stanley, 2011). The correlation design was chosen after careful consideration of other quantitative design choices. Experimental design and quasi-experimental design were not appropriate for this study. A characteristic of experimental design is to the identification of cause-and-effect relationships. The advantage of experimental design is showing greater internal validity. However, experimental design provides less external validity (Chan, Landry, & Tory, 2011).

Quasi-experimental design helps predict the casual effect of an intervention on a target population of a study (Hamoudi & Dowd, 2013). The quasi-experimental design is characterized by a control group and a treatment group. However, quasi-experiment does not contain random assignment of participants to groups (Currie, Ray, & Neidell, 2011). The quasi-experiment approach reduces threats to external validity as the natural environments do not face the same issues related to artificiality as compared to a well-

controlled laboratory setting. However, the quasi-experiment approach increases threats to internal validity because the treatment and control groups may not be comparable at starting point (D'Onofrio, Lahey, Turkheimer, & Lichtenstein, 2013).

Research Questions

The purpose of research is to find answers to research questions (Berete, 2011). Researchers repeatedly pose a question regarding whether the proper implementation of corporate governance improves financial performance and market value of firms (Berete, 2011; Schultes, 2011). In this study, data on corporate governance mechanisms, corporate financial performance, and market value were analyzed to answer specific research questions. Financial performance was measured by two different measures, return on assets (ROA) and return on equity (ROE), while market value was measured by Tobin's q (Coskun & Sayilir, 2012). The research questions are

RQ1: Is there a statistically significant relationship between corporate governance and corporate financial performance for publicly listed companies in KSA?

RQ2: Is there a statistically significant relationship between board size and corporate financial performance for publicly listed companies in KSA?

RQ3: Is there a statistically significant relationship between board independence and corporate financial performance for publicly listed companies in KSA?

RQ4: Is there a statistically significant relationship between board committees and corporate financial performance for publicly listed companies in KSA?

RQ5: Is there a statistically significant relationship between shareholding ownership structure and corporate financial performance for publicly listed companies in KSA?

RQ6: Is there a statistically significant relationship between executive compensation and corporate financial performance for publicly listed companies in KSA?

RQ7: Is there a statistically significant relationship between corporate governance and market value for publicly listed companies in KSA?

RQ8: Is there a statistically significant relationship between board size and market value for publicly listed companies in KSA?

RQ9: Is there a statistically significant relationship between board independence and market value for publicly listed companies in KSA?

RQ10: Is there a statistically significant relationship between board committees and market value for publicly listed companies in KSA?

RQ11: Is there a statistically significant relationship between shareholding ownership structure and market value for publicly listed companies in KSA?

RQ12: Is there a statistically significant relationship between executive compensation and market value for publicly listed companies in KSA?

Hypotheses

Hypotheses are assertions of what the answers of the study's research questions will be (Schultes, 2011). I sought to test the following hypotheses based on the theory and empirical evidence on the relationship between corporate governance (independent variables) and companies' performance and companies' values (dependent variables).

$H_0$1: There is not a statistically significant relationship between corporate governance and financial performance.

H_a1: There is a statistically significant relationship between corporate governance and financial performance.

$H_0$2: There is not a statistically significant relationship between board size and financial performance.

H_a2: There is a statistically significant relationship between board size and financial performance.

$H_0$3: There is not a statistically significant relationship between board independence and financial performance.

H_a3: There is a statistically significant relationship between board committees and financial performance.

$H_0$4: There is not a statistically significant relationship between board committees and financial performance.

H_a4: There is a statistically significant relationship between board committees and financial performance.

$H_0$5: There is not a statistically significant relationship between shareholding ownership structure and financial performance.

H_a5: There is a statistically significant relationship between shareholding ownership structure and financial performance.

$H_0$6: There is not a statistically significant relationship between executive compensation and financial performance.

H_a6: There is a statistically significant relationship between executive compensation and financial performance.

$H_0$7: There is not a statistically significant relationship between corporate governance and market value.

H_a7: There is a statistically significant relationship between corporate governance and market value.

$H_0$8: There is not a statistically significant relationship between board size and market value.

H_a8: There is a statistically significant relationship between board size and market value.

$H_0$9: There is not a statistically significant relationship between board independence and market value.

H_a9: There is a statistically significant relationship between board independence and market value.

$H_0$10: There is not a statistically significant relationship between board committees and market value.

H_a10: There is a statistically significant relationship between board committees and market value.

$H_0$11: There is not a statistically significant relationship between shareholding ownership structure and market value.

H_a11: There is a statistically significant relationship between shareholding ownership structure and market value.

$H_0$12: There is not a statistically significant relationship between executive compensation and market value.

H_a12: There is a statistically significant relationship between executive compensation and market value.

Theoretical Framework

The theoretical framework of this study was based on two theories: agency theory and institutional theory. An agency problem arises when there is imperfect alignment of interest between the principal (shareholder or owner) and the agent (managers). If there is a conflict of interest between the two parties, the wealth and welfare of the shareholders and other stakeholders are not maximized. Managers need to be compensated for maximizing the wealth and welfare such that they also benefit from good corporate performance and market value (Schultes, 2011). Jensen and Meckling (1976) presented the agency theory as a theoretical basis of corporate governance, which

identifies governance mechanisms that can minimize the conflict of interests resulting from the separation of ownership and management of firm resources (Syriopoulos & Tsatsaronis, 2012). The major focus of corporate governance mechanisms is to design effective corporate control to assure executives act in the best interest of stakeholders (Awotundum, Kehinde, & Somoye, 2011). However, agency theory does not cover corporate governance fully; combining the agency theory with institution theory establishes a foundation that redefines the model of corporate governance (Al Mamun, Yasser, & Rahman, 2013).

There are multiple roots of the institutional theory, but the principal contributors to the development of institutional theory were DiMaggio and Powell (1983). The proponents of institutional theory posit that executives seek the support and endorsement of a wide group of stakeholders for gaining legitimacy for their firms. Internal and external stakeholders exert pressure on firm's leaders by assessing its conformity and adherence to existing rules and laws and their own value systems. Therefore, firms gain legitimacy when its goals and activities confirm and adhere to stakeholders' goals and expectations (Puffer & McCarthy, 2011; Surroca, Tribó, & Zahra, 2013). The role of institutions' leaders in a country's economy is to mitigate both information and transaction costs by mitigating uncertainty and establishing proper structure that facilitates the interactions among firms (Yi, Liu, He, & Li, 2012). The enforcement of the rules and regulations positively affect the corporate performance (Al Mamun et al., 2013).

The emphasis of agency theory is on the management ethics; while the emphasis of institutional theory is on the formation of social culture of firm life (Yi et al., 2012). Corporate governance mainly depends on the large environments within which business leaders behave; these include the legislative environment, such as the stakeholders' protection laws, and enforcement and compliance capabilities (Adegbite, 2012). The focus of agency theory is the management and principles for stakeholders' protection; while the focus of institutional theory is the rules and regulations for monitoring and controlling firms, and enforcement of these rules and regulations (Al Mamun et al., 2013).

Bonna (2011) concluded that corporate governance mechanisms may help improve company financial performance and market value, and mitigate financial risk in publicly listed companies. In consistency with agency theory, the weakness of corporate governance system leads to the conflict of interests and opportunistic actions by managers, while sound corporate governance aligns the interests between the principal and the agent, which may result in better performance of firms. Thus, it is hypothesized that robust corporate governance system may positively affect both corporate performance and market value.

Definition of Terms

The following definitions are the key terms within this study:

Board committees: Committees are specialized in specific functions such as auditing (audit committee), structuring the executive compensation (nomination and

remuneration committee) and assuring compliance with corporate governance best practice (compliance committee) or risk evaluation (risk committee). Firms may create other committees depending on their particular needs and challenges (Przybylowski, Aluchna, & Zamojska, 2011).

Board of directors: Board is the link between people who supply the capital (the shareholders or investors) and the people who use and invest the capital to create value (the managers) (Przybylowski et al., 2011).

Board independence: All or most of a board's members do not have a relationship with the company except as executives (Pandya, 2011).

Board size: Board size is the number of the board of directors' members of a company elected by the shareholders, including independent and non-independent members (KSA's Corporate Governance Regulations, 2006).

Corporate governance: Governance is the system of internal controls and procedures by which individual companies are managed. Corporate governance provides a framework that specifies the rights, and roles and responsibilities of different groups, such as management, and the board and shareholders within an organization (Awotundum et al., 2011).

Executive compensation: Compensation is total payments in the form of salary, bonuses, and stock options for services provided by corporate managers (Bonna, 2011; Lin, 2010).

Financial performance: A measure of how well a company can utilize assets from its primary activity of a business and yield profits for investors; it is a measure of a company's effectiveness (Stanwick & Stanwick, 2010).

Governance index: The G-Index (GI) is the total of one point for the existence or the absence of each provision (Gompers, Ishii, & Metrick, 2003).

Market value of equity: The total dollar market value of all of a firm's outstanding shares, common and preferred shares; it is synonym for market capitalization (Coskun & Sayilir, 2012).

Ownership structure: Ownership structure is one of the most important corporate governance mechanisms, which includes level of equity, nature of equity, and the check-and-balance of the shareholding structure (Mangunyi, 2011).

Tobin's q: Tobin's q is the market value of equity plus total book value of liabilities divided by total book value of assets (Coskun & Sayilir, 2012).

Assumptions, Limitations, and Delimitations

Assumptions are facts considered to be true, but are not actually verified. Assumptions carry risk and should be treated as such. Researchers make assumptions about phenomenon and theory under investigation, the instrument, the method of analysis, the methodology, the sample, and the results (Simon, 2011). Limitations refer to potential weaknesses of the study. Limitations are those items the researcher cannot control and monitor (Brutus, Aguinis, & Wassmer, 2013). Delimitations refer to the

bounds or scope of the study (Simon, 2011). The delimitations are related to theories, practices, and business problem (Simon, 2011).

Assumptions

The first assumption was corporate governance standards are more organized and sustainable in developed countries as compared to developing countries where political, cultural, and economic backgrounds are sufficient. Corporate governance in developing countries is not mature and sound, because of the lack of professional management strategies and investment confidence. The data in this study were gathered from existing data sets. The data were secondary and not originally intended for this study. Therefore, the second assumption for this study was that the business leaders of the firms under study reported honest, complete, and accurate data for the subject study period. The third assumption was the theoretical framework based on agency theory and institutional theory was relevant for the phenomenon of corporate governance under study in Saudi publicly listed companies.

Limitations

This study contained several potential limitations. The first potential limitation of this study was the use of the available existing data that were not originally intended for this study. The secondary data could be a potential source of errors, which may hamper the findings to be generalized to all publicly listed companies. Overcoming this limitation requires using various data sources, such as (a) companies' websites, (b) annual reports, and (c) Saudi stock market's website (Tadawul). Data triangulation can

eliminate or minimize such limitation through using various data sources, rather than a single data source (Bonna, 2011).

A second limitation of this study was related to variables measurements. The financial performance and market value of companies were precisely considered financial indicators exclusively. Academic researchers do not concur on specific measures assessing financial performance and market value.

A third limitation was related to this proposed study's focus. The focus of this study was on the internal processes of a firm, rather than external factors. Along with internal factors, external factors have a significant effect on firm financial performance. Interest rate policy, foreign exchange, macro economy, and inflation may have a more significant impact on firm financial performance than on how a firm is regulated and monitored internally. Therefore, the researchers should not compare findings from this study with previous researchers who addressed the relationships being studied.

Delimitations

The purpose of this study was investigating the relationship between corporate governance on both financial performance and market value of companies. The focus of this study was on the traded companies in KSA for the years 2010- 2014. Only the companies with availability of both corporate governance and financial data throughout the study period were examined. The variables of corporate governance were limited to (a) board size, (b) board independence, (c) board committees, (d) ownership structure, (e) and executive compensation. Financial performance was represented by only ROA and

ROE, while market value was restricted to Tobin's q. The purpose of the research did not include identifying the causation of financial performance or market values of the corporations.

Significance of the Study

Corporate governance systems are important and necessary for contemporary business environment, because accounting standards, legislation, and economic theories are not effective in mitigating the conflict of interests between firms' managers and stakeholders. In addition, rules and regulations of corporate governance may enhance a firm's financial performance and market value in pubic listed companies (Bonna, 2011). The effectiveness and efficiency of corporate governance systems can be different in developed and developing stock markets, such as Middle East markets. This difference is because of the disparate international corporate governance structures resulting from dissimilar regulatory, economic, and social conditions (Rouf, 2011). Accordingly, the result of implementing corporate governance in both types of markets may be different. The benefits gained from a particular corporate governance practices vary depending on company and country characteristics (Ionescu, 2012).

Contribution to Business Practice

The focus of this study was on examining the relationship of corporate governance with both financial performance and market value of publicly listed companies in KSA. Based on the robust procedures of this study, the results can be generalized to other companies in KSA. The financial performance and market value

directly affect the investment return of the shareholders and accordingly impact shareholders' wealth. Also, the financial performance and market value affect the strategic decisions of the firms' leaders in investing their firm's resources. Shareholders' wealth is the appropriate goal for the leaders of any for-profit company. There is a positive and often direct relationship between corporate financial performance and stock price, and consequently shareholder wealth. When a firm's managers try to maximize the wealth of their shareholders, managers are trying to increase the firm's stock price (Berthelot, Morris, & Morrill, 2010). Sound corporate governance practices and policies can play an important role in improving corporate financial performance and market value (Zaharia & Zaharia, 2012).

Furthermore, firms' leaders can use the findings of this study to reduce investment risk and increase investor confidence in companies' performance. Business leaders can differentiate their companies and send credible signals to attract investors by self-adopting good corporate governance practices and policies. Business leaders may reduce the cost of capital, and enhance market value and reputation for their companies, and raise the fund required for operation and expansion when improving companies' corporate governance practices (Ionescu, 2012). Based on this study's findings, the concerned parties of corporate governance can build a corporate governance model, which maximizes the companies' values and protects stakeholders' rights.

Implications for Social Change

At the community or society level, the business leaders and regulators can benefit from the study's findings to fight corruption, encourage more investments, and develop capital markets. The protection of the shareholders' and other stakeholders' interests is one of the important factors for creating efficient and competitive stock markets, as well as maximize the benefits of the countries' citizens (Koncevičienė, Ščebrina-Dalibagienė, & Levišauskaitė, 2012). Corporate leaders and regulators can use the findings of this study to build a corporate governance model, which protect stakeholders' rights and reduce bankruptcies. Thus, promoting and implementing good corporate governance, as well as utilizing the study's findings can affect a country's financial stability, leading to affecting its economic growth.

A Review of the Professional and Academic Literature

Because of increasing demand of corporate governance rules and regulations, and the pressure put on the business leaders to address firms' economic and social effects, the academic literature of corporate governance has expanded in the last decade of the 20th century. The key purpose of this literature review is to provide an overview of relevant previous and current studies addressing the importance of corporate governance and its relationship with corporate financial performance and market value. This literature review is focused on research that supports the research questions, hypotheses, and theoretical framework.

The searching strategy was focused on peer-reviewed references that were within 5 years of expected CAO approval of the completed study. I collected the references that support this study using several methods. Relevant articles and dissertations were obtained from data bases such as Business Source Premier, Academic Source Premier, ABI/INFORM, and ProQuest Central. Relevant books were collected through college libraries.

The review of the professional and academic literature heading is organized into six principal headings: (a) corporate governance theories and their assumptions, as well as their strengths and weaknesses, (b) the concepts and definition of corporate governance, (c) the practices of corporate governance in developing countries and KSA, (d) corporate governance mechanisms (independent variables) and practices in both developed and emerging markets, (e) exploring the different corporate governance indexes, and (f) the relationship between corporate governance mechanisms and dependent variables: firm performance and market value. This study contains 158 references, of which 136 references were published within 5 years of expected CAO approval of the completed study. Peer-reviewed references are 100% of the total study's references. Frequently used search terms included (a) corporate governance, (b) corporate governance mechanisms, (c) corporate governance theories, (d) financial performance, (e) market value, (f) developing countries, (g) developed countries, (h) KSA, and (i) publicly listed companies.

Corporate Governance Theories

In this section, some of the corporate governance theories, especially agency theory and institutional theory as the basis of the theoretical framework of this study, are reviewed for understanding how they relate to corporate governance. Researchers developed several theories that highlight the key objectives of the company and how the company meets its obligations and responsibilities toward stakeholders. Corporate governance started from agency theory and based on emerging problems and issues; other theories such as stakeholder theory, stewardship theory, institutional theory, and resource dependency theory are developed (Htay, Salman, & Meera, 2013). In this study, the discussion of corporate governance theories included the five key theories that affected the development of corporate governance: agency theory, stakeholder theory, stewardship theory, institutional theory, and resource dependency theory.

Agency theory. The proponents of agency theory specify a contract that abides owners and executives as a principal-agent relationship. As per this contract, managers have one objective, that of serving and satisfying the interests of owners. Accordingly, any deviation away from this contractual relationship results in an agency problem (Ngoungo, 2012). Thus, agency problem arises when the welfare of a person (agent) depends on another (principal). Agency problems arise when management set some goals contradicting of those owners.

As the agent is a person that act on behalf of the principal and the principal is the person affects the action. The executives of the companies can pursue their interests even

to the detriment of shareholders' interests which becomes a problem. The executives have superior information and may exploit the company resources for achieving their own goals and lower the owners' profits (Pelayo-Maciel, Calderon-Hernandez, & Serna-Gomez, 2012). When executives' stakes are low, there exists a greater probability that the executives involve themselves in value decreasing works. Accordingly, executives tend to conceal information from the shareholders and take decisions to pursue their interests. Thus, the proponents of agency theory believe that the management is not always likely to behave and act in the best interest of the owners (Al Mamun et al., 2013); those scholars focus on that management is self-serving (Shin-Ping & Hui-Ju, 2011).

The interest of the agency theory proponents is how to minimize the conflict of interests resulting from the separation of ownership and management of firm resources (Habbash, Lijuan, Salama, & Dixon, 2014). The objective is to resolve conflict of interests not only between the shareholders and management, but also between all external and internal stakeholders, thereby improving firm performance and shareholder's wealth (Nuryanah & Islam, 2011). In the most cases, the divergence of interests between the principal and agent is due to lack of corporate governance mechanisms for efficient and effective control, and approval and sanctioning of management decisions (Ongore & Kobonyo, 2011).

An agent cannot be trusted; therefore monitoring mechanisms are substantial to mitigate the conflict of interests between an agent and principal (Darus & Mohamed,

2011). Sound control over management actions would reduce agency problems, and enhance company performance and market value. There is a pressing need for corporate governance mechanisms to control management's behaviors and actions to protect shareholders' interests and align these interests with management's interests (Dimitropoulos & Tsagkanos, 2012).

The proponents of agency theory spell out corporate governance mechanisms that can minimize conflict of interests between the agent and principal, which include incentive schemes for executives to reward them financially for maximizing shareholders' interests and wealth. The most famous incentive schemes include such things as bonuses, stock options, and prerequisites, which are related to long-term value maximization of the company and shareholder wealth (Syriopoulos & Tsatsaronis, 2012). Monitoring and reward structures are meant to align the interests of owners with the incentives of management (Shin-Ping & Hui-Ju, 2011). Furthermore, to ensure capital is applied to its intended purpose and improve its control, shareholders choose individuals from their rank to represent them on the board of directors (Mangunyi, 2011).

Shareholders (principals) incur agency cost for reducing the failings of management and board by hiring external auditors to control management actions that are approved by the board (Ongore & Kobonyo, 2011). Owners bear agency cost to overcome management opportunistic activities (Samaha & Abdallah, 2012). Thus, agency cost occurs from the misalignment of interests between the owners and management (Ibrahim & Samad, 2011). This cost can reach the lowest level, if there is

close alignment between the goals of principal and agent (Gherghina, Vintila, & Tibulca, 2014; Pelayo-Maciel et al., 2012).

Stakeholder theory. The concept of stakeholders has gained widespread popularity among scholars, corporate executives, and media. Stakeholders are any individual or group who are affected or can affect the achievement of the firm objectives (Al Mamun et al., 2013). Stakeholders can include shareholders, suppliers, customers, employees, lenders, governments, local charities, and various interest groups. Stakeholder theory balances between the interests of firm stakeholders and their satisfaction. The proponents of stakeholder theory require firm managers to design and implement proper methodologies to identify the nature of the relationship between the managers and interested parties to achieve their goals. The economic value for any firm is created by parties who voluntarily come together, coordinate, cooperate, and then improve and enhance everyone's circumstances (Mangunyi, 2011). The proponents of stakeholder theory clarified the awareness of stakeholders' perspectives and organizational justice on the equity of corporate governance. Stakeholder theory challenges the assumption that corporate governance aligns between shareholders, of being residual risk-takers (Mason & Simmons, 2014).

Different scholars have given different definitions of stakeholder theory. The wider and more balanced definition considers stakeholders as those groups who are vital to the success and survival of the firm (Al Mamun et al., 2013). This definition is corporation oriented and is considered as part of a larger social system. Business leaders

should provide to all stakeholders, directly or indirectly affect the survival of the firm, how the firm is affecting them (Al Mamun et al., 2013).

Stakeholder theory is a combination of philosophical ideas from law, ethics, and economics. The proponents of stakeholder theory extend the responsibility of the management toward corporate social responsibility, profit maximization, and business morality (Htay et al., 2013). Despite stakeholder theory is useful in developing and maintaining good relationships with stakeholders through disclosing necessary information, which reduce an agency problem, the academic scholars do not state the type of information should be disclosed. Stakeholder theory provides management a greater capability and more resources to face firms' internal problem (Al Mamun et al., 2013).

Stewardship theory. Stewardship theory evolved from psychology and sociology; while agency theory had its origin in economics (Al Mamun et al., 2013). The proponents of stewardship theory assume that management aspires to high objectives by high levels of responsibility and achievement, and self-motivation, as well as protecting the firm through collective actions. Under stewardship theory, management acts selflessly for the benefits of the firm and owners (Pelayo-Maciel et al., 2012).

Also, the proponents of this theory assume that the key duty of management is maximizing company performance and market value; thereby creating more benefits for steward and principal (Al Mamun et al., 2013). According to this definition, management is defined as steward who works for the principal. In another perspective,

stewardship theory is defined as act or behavior that spells out the long-run interest of the firm, as well as owners a head of individuals' self-interest. Management plays its role as steward by aligning its own benefit and interest along with the firm objectives. Accordingly, the management aims to protect the principals and make profits for them, while in agency theory, corporate leaders work for their self-interest (Al Mamun et al., 2013).

Under stewardship theory, the principal empowers management with the information, equipment, and power assuming that the best interests of the firm are achieved (Al Mamun et al., 2013). The principal should ignore the assumptions resulting from agency theory and build a trusting relationship with the steward to avoid any monitoring and control structure. Lack of trust with respect to ethical behavior and authority is replaced, which is one of the main distinguishing assumptions and features of stewardship theory (Mangunyi, 2011). Giving full authority helps management make decisions independently for the best interest of the company (Al Mamun et al., 2013).

Under agency theory, the effectiveness of the board of directors is achieved by the separation of the CEO and Chairman positions. On the contrary, in stewardship theory CEO duality may be a good corporate governance practice with positive consequences for firm financial performance, because of integration and unification of the authority chain, leading to faster decision making process (Vintila & Gherghina, 2012). Accordingly, the interests of CEOs and principals are aligned, and CEOs endeavor to balance the interests of all stakeholders, including shareholders and seek to

make decisions for their benefits (Pelayo-Maciel et al., 2012). Thus, companies that espouse CEO duality achieve faster, better, and more efficient decisions. This is because the executives are inherently trustworthy and good stewards of the firm assets and resources (Vintila & Gherghina, 2012). Therefore, there is no problem resulting from management's motivations as stewardship run companies outperform other firms (Syriopoulos & Tsatsaronis, 2012). However, according to KSA's Corporate Governance Regulations (2006), the combination of chairman post and any executive position, such as CEO, managing director, or general manager, is strictly prohibited.

Institutional theory. The proponents of institutional theory address the uncertainties of firm transactions between economic agents. (Al Mamun et al., 2013). The role of institutions in an economy is to reduce both information and transaction costs by eliminating uncertainty and establishing proper structure that facilitates the interactions between firms. This gives corporations the equal opportunity for an active role in an institutional environment if enterprises have the ability to move beyond institutional constraints. Institutional environment is defined as a set of legal, social, economic, and political conventions that create the foundational basis for producing product, services, and exchange (Yi et al., 2012). This environment as an external factor is very important for companies in a transition economy (Yi et al., 2012).

According to institutional theory, the corporation is not just a place where operations happen; rather these are also cultural and social systems (Yi et al., 2012). Accordingly, the firm cannot survive without legitimacy. The perspective of institutional

theory is best met in an environment with high levels of efficient legislations. Thus, corporate governance is considered as an institutional arrangement by which investors ensure an adequate return on their investment. The key feature of institutional theory is the openness about firm practices and human behavior. The formation of social culture of the firm is an important factor in institutional theory (Yi et al., 2012).

Resource dependency theory. Resource dependency theory was developed by Pfeffer (1972), which posited that companies depend on one another for getting the required resources; thereby links are created (Ovidiu-Niculae, Lucian, & Cristiana, 2012). Multiple firms create and maintain social relationship for the continuance of this interlocking directorship. This directorship can be achieved by a person who is a member of the boards of both firms. The unique combination of the quality of top management and wide experience and expertise of the board would positively affect the strategic decision making, leading to better performance of the organization (Ovidiu-Niculae et al., 2012). According to this theory, there are motivations and incentives for a company to create linkages with outside parties, as this help to reduce the environmental uncertainties the company faces. The companies will consider the advantages of linking and engaging in open dialogue by taking into account the costs and direct benefits associated with their decisions due to their commitment to dialogue. Also, companies that have a good relationship with the key stakeholders can create value for the companies and reduce their risks. Accordingly, companies with strong relationship with stakeholders face less uncertainty (Rehbein, Logsdon, & Buren, 2013).

More powerful firms want to monitor and control their external environments and possess greater power to form their response to the social issue than less powerful firms. Companies with these combined factors are in a sound position to solve tough issues such as human rights issues, labor problems, and environmental codes and social responsibilities without having to worry about the negative reaction from other stakeholders (Rehbein et al., 2013). Under resource dependency theory, a board with a high level of connections to the external environment would improve and ease access to valuable resources, such as finance and capital, improving corporate governance practices (Vo & Nguyen, 2014).

A corporate board role in developing access to required resources is a factor of the resource dependency theory (Rehbein et al., 2013). The proponents of both stakeholder theory and resource dependence theory assert the involvement of the board members in decision making through the service roles of the board. Stewardship theory authors describe board of directors' involvement in both decision control and decision management through the strategic roles of the board; whereas the legalistic perspective reflects board of directors' involvement in decision management through the execution of decision control roles (Ovidiu-Niculae et al., 2012; Pfeffer, 1972). Academic scholars criticized both resource dependence theory and stewardship theory over time. Resource dependency theory is criticized for not focusing on the decision making and internal process, while stewardship theory is questioned for its lack of details about board of

directors activities, as well as not describing how firm directors take their decisions (Ovidiu-Niculae et al., 2012).

In summary, corporate governance theories have been used in developing the best practices and mechanisms of corporate governance (Htay et al., 2013). There is no corporate governance theory that is valid and applicable all the times and in all circumstances. There is no one ideal corporate governance theory, but a combination of two or more theories can provide the business requirements and maintain the firm operational, while aligning the interests of both principal and management (Al Mamun et al., 2013).

The Concepts and Definitions of Corporate Governance

In the last decade of the 20th century, corporate governance gained high importance and discussed not only in the finance literature, but also in other academic literature in terms of ownership structure of the company, economic efficiency and product market competition, international context, and general discussion (Kim, 2011). Corporate governance arises when the firm faces agency conflict between the shareholders and managers. The efficient contract between the two parties is not enough to remove that conflict of interest (Martani & Saputra, 2009). Corporate governance is a vital tool used by companies' leaders to solve the conflict of interest by convention. Through corporate governance, business leaders lay down strategic targets and goals of the firm; corporate governance helps leaders decrease the operational risk of the firm to the lowest level through the efficient internal and external controls (Kim, 2011).

Corporate governance includes the rules, regulations, and mechanisms a company's managers adopt to manage interests and conflicts of corporate outsiders (customers, suppliers, shareholders, society, state, peers) and insiders (employees, managers, executive directors), company value maximization, and aiming agency conflict minimization (Syriopoulos & Tsatsaronis, 2012). The structure of corporate governance includes law and regulation, corporate charter, board control internal control, and market control (Martani & Saputra, 2009). Stronger rule of law and investor protection are related to corporate governance practices and company performance (Awotundum et al., 2011). The quality of corporate governance in the developed and developing countries mostly depends on the regulatory framework (Koncevičienė et al., 2012). Corporate governance practices rely on company and country characteristics (Ibrahim, Rehman, & Raoof, 2010).

The sound and proper corporate governance may prevent controlling shareholders and misbehavior of company management, and reduce the risk to small investors. Firms without controlling group may adopt higher quality corporate governance. The enhancement and improvement by lawmakers and regulatory authorities of corporate governance rules, regulations, and practices are widely recognized as a significant element in strengthening and improving the foundation for the long-term and short-term economic performance of countries and organizations. Corporate governance system can be divided into two main categories: Insider system and outsider system. There is a conflict of interest between weak and strong shareholders in the insider system, while in

the outsider system the conflict of interest is between strong managers and widely dispersed shareholders (Ibrahim et al., 2010). Corporate governance system has two key objectives: The first objective is integrity management, while the second one is guidance to maximize the created value for shareholders (Bostan & Grosu, 2010).

Sound corporate governance gives important benefits to countries and firms. From the country's point of view, well-organized corporate governance increases the image and reputation of the country, attracts foreign capitals, and prevents capital flights. It also increases the competitiveness of capital market and economy, ends crisis in a minimum damage, helps distribute resources more effectively, and provides and maintains high welfare (Dagli, Eyuboglu, & Ayaydin, 2012).

When it comes to firm's perspective, robust corporate governance means decreasing the cost of capital, and increasing liquidity and opportunities of finance. Also, good corporate governance helps firms overcome crisis easily. Firms with well-organized corporate governance have more success than other firms (Murcia, Murcia, Rover, & Borba, 2014; Zeitoun, Osterloh, & Frey, 2014). Investors are ready for paying a higher price for the shares of firms which adopt well-organized corporate governance (Dagli et al., 2012). Sound corporate governance may improve the corporate financial performance and the market value in the longer term without endangering the sustainability of the firm. It also helps solve the conflict of interests between the firms and the stakeholders who are related with the firm (Dagli et al., 2012). Finally, the effectiveness of corporate governance mainly depends on the effective operation and

decisions of the board of directors and the power exercised by investors or shareholders (Ngoungo, 2012).

However, there is a threat of overregulation by governments. The overregulation may not always lead to the desired results in terms of economic and corporate stability, and effective performance and higher market value of the firm. The corporate governance can be more costly than the targeted benefits and can also hinder or limit managerial freedom of initiative, leading to negative performance (Koncevičienė et al., 2012; Meesiri, 2014).

Corporate governance concepts. For a better understanding of the legal systems of the corporate governance in both developed and emerging markets, it is necessary to understand the concept of corporate governance. Corporate governance is a formal distribution of power between three main parties: The board of directors, managers, and shareholders for assuring that the decisions of management do not conflict with the shareholder interest (Ngoungo, 2012). The main concern of corporate governance system is managing the relationship among various corporate stakeholders.

There are narrow and broad concepts of corporate governance (Pandya, 2011; Rahim & Alam, 2014). In a narrow concept, corporate governance includes a set of relationships among the company's shareholders, board of directors, management, auditors, and others (Pandya, 2011). In the broad concept, corporate governance is the extent to which firms are run in an honest and open manner, which is important for the efficiency of capital allocation, overall market confidence, and development of the

overall wealth and welfare of the countries (Fülöp, 2014; Pandya, 2011). Both concepts result in efficient and effective allocation of resources (Pandya, 2011)

Corporate governance can be approached through two other different perspectives: A restraint approach and a large approach. In a restraint approach, corporate governance can be defined as the totality of legislative and economic means, which helps achieve the owners' interests (Cretu, 2012). Accordingly, the types of investments in any country have a significant part in the orientation of balanced and powerful corporate governance. In a wider perspective, corporate governance represents the totality of mechanisms and control norms applied to harmonize and protect the interests of all the firm's stakeholders (Cretu, 2012; Velte, 2014). The studies conducted by World Bank considered the larger approach of corporate governance, considering the main stakeholders of the firm without focusing on the relationships between managers and owners (Cretu, 2012). The philosophy of corporate governance depends on the disclosures and transparency that improve the trust in firms by increasing public confidence in those companies. Sound corporate governance refers to a trend toward greater and more binding corporate responsibility, as well as conducting a business as per the acceptable ethical principles and standards of the country (Abels & Martelli, 2011). As a result, firms safeguard stakeholder's rights and focus on better operational and financial performance.

Corporate governance definitions. There is no standard definition of corporate governance among the researchers; rather management scholars have defined corporate

governance in different ways and relate their definitions to specific aspects of corporate governance (Onakoya, Fasanya, & Ofoegbu, 2014; Talamo, 2011). However, based on the literature review and contemporary studies of the various definitions of corporate governance, two main sets of corporate governance definitions are classified. The first set of definitions that identify behavioral patterns of firms with regard to financial structure, growth, efficiency, performance, and relations with stakeholders and shareholders (Talamo, 2011). The second set of definitions that identify the normative framework in terms of rules and regulations governing, controlling, supervising and influencing the corporate activity (Ferreira Caixe et al., 2014; Man, 2013). There exists an overlap between the two sets. For the purpose of this study, a variety of corporate governance definitions were discussed, in particular, those that are consistent with agency theory and institutional theory.

The majority of definitions relate corporate governance to supervision and control of the management or of the firm, or of the managerial behavior (Talamo, 2011). The term of corporate governance means the control mechanism governing the management activities monitored by board of directors (Abels & Martelli, 2011). Corporate governance is defined as a system by which firms are controlled and directed (Syriopoulos & Tsatsaronis, 2012). This traditional approach has ignored the unique influence that shareholders exert on the board of directors and by extension, the management, to behave in a particular way in their interest (Ongore & Kobonyo, 2011).

Therefore, scholars have defined corporate governance in different ways to avoid the criticisms to the traditional approach (Rambo, 2013).

Corporate governance is defined as a system of rules and regulations that are likely to be institutional market in the area arising or pursuing different categories of management, shareholders, stakeholders, customers, personnel dependent public, and so on (Bostan & Grosu, 2010). The company leaders must practice sound corporate governance to get a better financial return in the future. Similarly, corporate governance is defined as a system by which firms are directed, monitored, controlled, and governed through the distribution of rights and responsibilities of different people in the firm such as the board of directors, shareholders, stakeholders, and managers (Pelayo-Maciel et al., 2012). The focus of this definition is that companies are controlled and governed, especially the relationship between shareholders and companies' leaders.

Also, corporate governance is defined as a set of rules and norms that monitor the relationship among principals and agents of the firm, the employees, governments, creditors, and other stakeholders relating to the rights and responsibilities (Nuryaman, 2012). This definition focuses on the system that regulates the firm by which business is directed and controlled. Furthermore, corporate governance refers to the collection of institutions, policies, and rules influencing how a company is managed and controlled (Donaldson, 2012). Ccorporate governance is considerably depends on the large environments within which companies work; these include the legislative environment, such as the enforcement capabilities and efficiency of the judiciary, shareholder

protection laws, and the general environmental support for business (Adegbite, 2012). This group of definitions focuses on corporate governance as a system by which a firm is governed, monitored, and controlled for identifying responsibilities and rights among different participants in that firm, thus achieving the interest of the different stakeholders of a firm.

Another definition, which is the most widely used one, is that OECD defined corporate governance as distribution of rights and responsibilities among different levels in the firm, such as (a) shareholders, (b) managers, (c) directors, and (d) other interested parties in the company performance; identifying the rules and procedures improves the right decisions on firm's activities and affairs (Dagli et al., 2012; Jen, 2014). According to this definition, corporate governance should provide the proper structure that set the objectives of the firm and the means of achieving those objectives, as well as to determine performance monitoring. Thereafter, OECD defined corporate governance as a key element in enhancing and improving economic efficiency, and growth, as well as enhancing investor confidence in firm performance. Corporate governance system comprises a set of relationships between firm's management, shareholders, board, and other stakeholders, as well as providing the structure that lays down firms objectives and the procedures of achieving those objectives and controlling performance (Dagli et al., 2012).

Other management scholars defined corporate governance as the set of mechanisms, both institutional and market-based, that affect the directors of a company

to determine the right decisions that maximize the performance and market value of the company for its shareholders (Ibrahim & Samad, 2011). In other words, corporate governance deals with the ways in which suppliers of funds to firms confirm obtaining a proper return on their investments. This definition of corporate governance is based on the principal-agent relationship and agency theory, which contends that the delegation of management authorities and responsibilities by the shareholder to the managers creates problem of moral hazard and adverse selection that lead to agency cost (Berthelot et al., 2010). Thus, the composition, size, and involvement of the board of directors are significant in corporation activities.

Another definition, corporate governance is defined as a structure and processes by which the management of firm business is performed for improving corporate accountability and business prosperity, as well as improving the investor's value and protecting the other stakeholders' interests (Shah, Kouser, Aamir, & Hussain, 2012). This definition is based on the collective interests of all the stakeholders, along with the interest of the individual, and connects corporate governance practices to the strategic decisions of the firms. Similarly, corporate governance is defined as the structure and process through which a company's affairs and operations are directed by enhancing corporate accountability and business prosperity with the ultimate goal of improving owners' wealth (Vintila & Gherghina, 2012). This group of definitions relates corporate governance to business prosperity, and value of firms and shareholders.

The variation between the above definitions of corporate governance clarifies the different perspectives taken by the scholars. This variation is due to the wide variety of subjects covered by corporate governance and by different authors who have different viewpoints when examining companies, especially if they have different intellectual backgrounds or interests. Thus, every scholar revises the definition of corporate governance based on the investigated issue. However, these large numbers of corporate governance definitions all share, implicitly or explicitly, some common factors. All of the above definitions of corporate governance refer to the presence of a conflict of interest between firms' management and stakeholders, and insiders and outsiders arising from the separation of ownership and management (Okpara & Kabongo, 2010).

Corporate Governance in Developing Countries and KSA

Corporate governance affects the developed countries, as well as developing countries throughout the world. Corporate governance standards could be more organized and sustainable in developed countries as compared to developing countries where political, cultural, and economic backgrounds are sufficient (Mulili & Wong, 2011). This section explores the practices of corporate governance in developing countries and KSA.

Corporate governance in developing countries. Corporate governance in developing countries sounds like innovation, because of the lack of professional management strategies, human resource capabilities, and investment confidence, as well as weak legal and judiciary systems (Mulili & Wong, 2011). Most of the previous

studies found that the corporate governance systems are variable and weak in developing countries. Because of the severe financial crisis and influence of international financial bodies, such as World Bank, most of the developing countries tried to establish corporate governance standards and principles, such as KSA, Egypt, and South Africa. For providing financial aid, World Bank and IMF have imposed structural development programs to the developing nations, which require radical changes in corporate governance practices (Aylin & Crowther, 2008). Investor protection and ownership structures are a fundamental factor affecting corporate governance practices in developed countries as well as developing countries. The concentrated ownership structure of emergent markets is accepted due to the weak property right systems in these countries, as most companies are owned and controlled by families (Aylin & Crowther, 2008).

In most developing countries, there are rules and regulations for conducting business, legal and regulatory systems to protect the obligations and rights of investors, and penalties for violators. However, the problem lies with the lack of monitoring and enforcement of these systems, laws, rules, and regulations, as well as adopting improper processes precluding effective implementation of corporate governance (Donaldson, 2012; Mande, Ishak, & Idris, 2014). Therefore, legal and regulatory systems should include not only enacting rules and regulations, but also of setting up a mechanism for enforcing those rules and regulations, as well as should have good standards of supervision compliance to the rules and regulations. Thus, the legal framework in developing countries for effective corporate governance exists, but the compliance and

enforcement are nonexistent or weak (Okpara & Kabongo, 2010). The practices have demonstrated that enforcement can be more important than the law on paper in developing countries (Trivun & Mrgud, 2012).

In general, annual reports and websites of publicly listed companies in developing countries are weak in terms of voluntary disclosure (Aylin & Crowther, 2008). Lack of disclosure and transparency, and corruption among companies in developing countries are greatest barriers to economic development, growth, and stability in these countries (Aylin & Crowther, 2008). Finally, there exists a pressing need for a legislative overhaul that creates regulatory agencies and contains their functions and enforcement mechanism (Okpara & Kabongo, 2010).

Corporate governance in KSA. KSA has an open economy since its inception as a modern state in 1932, but its financial sector delayed because the ruling regime depends on Sharia Law that prohibits interest-based transactions. KSA mainly depends on oil exporting revenue, which negatively affected the development of its securities market. However, the recurring volatility in oil prices has raised the need of new sources to diversify and thus reduce the effect of the fluctuation in the oil markets. Accordingly, KSA has started on a progressive economic reform program that requires pressing need for a modern financial market that complies to international standards of corporate governance (Piesse, Strange, & Toonsi, 2012).

Corporate governance has attracted financial experts and researchers especially with the advent of the twenty-first century as Saudi stock market grows and develops, as

well as firms adopt contemporary corporate governance practices. KSA exerts ongoing attempts for adopting international accounting and auditing standards thus enhancing the acceptance and understanding of the inevitability of corporate governance (Al-Qarni, 2010). Accordingly, KSA has undergone radical reforms to its corporate governance mechanism resulting in the issuance of Corporate Governance Regulations in 2006 to augment and expedite the development of corporate governance. The key purpose of this legislation is to protect the rights of all stakeholders, such as shareholders, creditors, employees, and lenders. The principles emphasized by this legislation are the responsibility, accountability, transparency, and fairness. All publicly listed companies on Tadawul should abide by this legislation and imposed disclosure in their annual reports and other forms imposed by Saudi capital market (Al-Qarni, 2010).

Despite the extensive regulatory reforms undertaken to improve corporate governance regulations, as well as strict supervision by Saudi Capital Market Authority on the implementation, there are still firms listed on Tadawul that experience poor compliance and weak performance. The leaders of publicly listed companies have interpreted these regulations differently; the implementation of one rule varies from company to another. To ensure high compliance by listed companies, regulatory agencies in KSA should enforce unified implementation of corporate governance rules and regulations through law.

Most Saudi firms have some specific characteristics, which affect the process of adoption of corporate governance mechanisms. KSA, like many other Middle East

countries, has high ownership concentration, along with dominance of family controlled firms. Most companies are held by families, executives, directors, government, and institutional or foreign ownership. Most ownership and management in Saudi firms are aggregated, and the owners are usually unwilling to delegate their authority and responsibility. Control is concentrated in the hands of dominant shareholders. Boards of directors are dominated by majority shareholders to the extent that their effectiveness and efficiency are doubtful. Other stakeholders appear to be marginalized in the actual practices of companies and the legal framework (Piesse et al., 2012). The low levels of disclosure and transparency, and the high levels of controls and concentrated ownership differentiate the corporate governance in KSA from that in developed countries.

The agency problem in KSA is between the minority shareholders and dominant shareholders. Agency problem is often created through an ownership structure of complex pyramidal structures (Shah et al., 2012). Independent directors or non-executive directors are mandated by law to protect the minority shareholders and improve firm performance (Kumar & Singh, 2012). Hassan Al-Tamimi (2012) examined the relationship between corporate governance and Saudi banks' performance and found a positive relationship between the effectiveness of corporate governance mechanisms and financial performance, whereas found an insignificant relationship between the efficiency of corporate governance mechanisms, and bank performance of government and local ownership groups.

Corporate Governance Mechanisms

In the aftermath of global financial crisis and financial scandals of a large number of entities, corporate governance has become a significant issue in both developed and developing countries. Much of the solutions built on the effective corporate governance mechanisms in order to protect investor rights and their wealth (Kumar & Singh, 2012). These mechanisms are designed to reduce the inefficiencies arising from adverse selection and moral hazard (Vintila & Gherghina, 2012).

There are two types of mechanisms: Internal audit mechanisms and external monitoring mechanisms. All the companies' activities are monitored and controlled through internal mechanisms, while external mechanisms comprise the control exercised over firms by external stakeholders (Vintila & Gherghina, 2012). Corporate governance utilizes internal monitoring mechanisms (Ngoungo, 2012). However, both types of mechanisms could be used to align the interests of stakeholders and managers (Vintila & Gherghina, 2012). In this heading, some of the corporate governance mechanisms that represent the independent variables of this study are reviewed for understanding how they reduce the inefficiencies that arise from opportunistic human behavior, as well as understanding the relationship between each mechanism and both firm performance and market value. The corporate governance mechanisms of this study are board size, board independence, board committees, ownership structure, and executive compensation.

Board size. The board of directors is the top executive unit of a firm and responsible for laying down the strategies and policies, and monitoring the company

activities (Maztoul, 2014; Pandya, 2011). The board is seen as a team of members with fiduciary responsibilities of directing and leading company activities with the key objective of protecting the interests of company's shareholders and other stakeholders. The board is assigned with three critical functions: Agency theory responsibilities, resource dependence responsibilities, and legal responsibilities (Brédart, 2014; Pandya, 2011).

Under agency responsibilities, the board is responsible for protecting the stakeholders' interests by ensuring the decisions taken for the company benefit, rather than the self-interests of executives, thereby the board becomes the guardian of the owners' interest. Under resource dependence responsibilities, the board is responsible for acquiring resources for the company based on its relationship with other companies. The legal responsibilities are a fiduciary responsibility; thereby the board fulfills a particular requirement to represent the legal rights of all stakeholders. These responsibilities include the hiring of the CEO and the evaluation of company performance (Stanwick & Stanwick, 2010). In KSA, the board becomes an important tool complementing the weak and inefficient corporate mechanisms to mitigate conflict of interests among the interested parties of a firm.

Board size is an important mechanism that could alleviate an agency problem; it is considered an important determinant of corporate governance effectiveness (Shin-Ping & Hui-Ju, 2011). Board size affects the extent of supervision, controlling, monitoring, and decision making in a firm. The scholars have not concurred on one optimal size for

the board of directors. Some scholars concluded that there is an inverse relationship between a company value and board size. The small board can help enhance firm performance (Vintila & Gherghina, 2012). From the agency perspective, small board is more likely to allow members to engage in genuine interaction and debate (Reddy & Locke, 2010). Also, these scholars argued that a large board may lead to a significant and negative impact on the future investment return (Tai, 2015). When the board members grow too big, boards become more symbolic, while a small board mitigates the agency problem and become more effective in the management process (Vintila & Gherghina, 2012). The incremental cost of poor communication may exceed the benefit associated with a large board. The difficulties in communication and coordination may increase when the board size increases. This causes more cost and greater agency problem (Habbash & Bajaher, 2014; Sáenz González & García-meca, 2014).

Some scholars recommended that the board members should be limited to seven or eight (Reddy & Locke, 2010). When the board of directors exceeds eight members, the board is less likely to control effectively; this paves the way for the CEO to control. Alternatively, fewer scholars concluded that a larger board may provide greater management supervision, increased pool of experience, and access to a wider range of resources (Brédart, 2014; Reddy & Locke, 2010). Consistent with this perspective, the dependence theory assumes that larger board size may result in higher profitability and market value because of the different expertizes knowledge and skills of board members (Ghazali, 2010; Habbash & Bajaher, 2014). However, the effect of board size on

performance and market value may differ for different types of organizations (Habbash & Bajaher, 2014; Nicolaescu, 2012). In KSA, Corporate Governance Regulations limit the minimum number of directors to be at least three and maximum eleven (Habbash & Bajaher, 2014).

Board independence. Most the efforts exerted by countries regulators have focused on the issue of board independence for reducing the CEO's influence over the board of directors (Joseph, Ocasio, & Mcdonnell, 2014). These regulators have required a minimum fraction of the board members to be independent. The rationale of these regulations is that if directors are independent of the executives, they are more likely to protect and defend shareholders and other stakeholders interests (Ahmed & Gábor, 2012). The independence of the board is a crucial mechanism, because outside directors represent true controls and can discipline the management to achieve firm objectives (Ongore & Kobonyo, 2011).

From the agency theory perspective, external or independent directors are more valuable than the insider directors, because they are less committed to the firm's management and its goals (Ivashkovskaya & Stepanova, 2011; Misangyi & Acharya, 2014). In addition, the insiders may be beholden to the CEO for their jobs; thereby they would not be keen to raise the sensitive issues of CEO actions and performance. Outside directors or independent directors are those board members who do not hold a large percentage of a company's shares, or they do not have professional relationships with the company they monitor (Syriopoulos & Tsatsaronis, 2012). The outside directors bear the

same legal responsibilities as the inside directors, but they accomplish the effectiveness by influencing company decisions, rather than monitoring and controlling operations. However, outside directors face difficulties in performing their responsibilities as they are not directly associated with the management (Pandya, 2011).

The independence protects shareholder interest, and conducts control and monitors functions in a better way to align managers' interests and stakeholders' interests. Therefore, to reduce the agency cost, the board is required to include a majority of independent directors, because they make the strategic planning role and monitoring role of the board more effective (Bouchareb, Ajina, & Souid, 2014; Kumar & Singh, 2012). The independent directors are more efficient and specialized to control the board than the executives and inside directors, as they have the capability to mitigate the concentrated power of the CEO, resulting in preventing the misuse of firm resources and improving its performance and market value. However, sometimes independent directors are more likely to align their interests with the management, rather than the shareholders, because they hold an unimportant stake in the firm (Ibrahim & Samad, 2011). From a different perspective, the proponents of stewardship theory argue that inside directors possess all necessary and vital information to take better managerial decisions, so they claim that a superior performance is associated with a majority of insiders (Syriopoulos & Tsatsaronis, 2012).

The findings of some research on the relationship between board independency and firm performance are mixed (Darus & Mohamed, 2011; Habbash & Bajaher, 2014;

Ghazali, 2010; Nuryanah & Islam, 2011; Vintila & Gherghina, 2012). Several authors found that the independent directors improve company performance and protect stakeholders in some cases in which there exists an agency problem, whereas others found either negative impact or no significant impact of independent directors on company performance (Kumar & Singh, 2012). There are several reasons for these contrasting findings, such as differences in samples, performance measures, time frames, and sometimes the operational definition of independent directors (Dimitropoulos & Tsagkanos, 2012). Accordingly, the selection of independent directors does not guarantee an improvement in the firm performance. The success of a firm mostly depends on the balanced composition of a board combination of outside and inside directors (Ahmed & Gábor, 2012). The findings of most research found that the optimal level of independent directorship is between 25% and 50% of the total board size (Pandya, 2011). Considering as an important attribute of an efficient board, KSA's Corporate Governance Regulations made it compulsory in 2006 that at least two or one-third of the members whichever is greater should be independent directors in order to improve core competencies of companies (Habbash & Bajaher, 2014).

Board committees. One of internal corporate governance mechanisms is board committees, which ensures that managers behave in the best interest of the stakeholders, including shareholders (Reddy & Locke, 2010). Suitable number of board committees is created according to the firm circumstances and requirements to help the board of directors to do its duties and responsibilities in an efficient and effective manner. These

committees are formed in accordance with the policies, rules and procedures laid down by the board, showing the responsibilities, duties, powers, and duration of each committee, as well as the manner in which the board controls and monitors its duties and responsibilities. Each committee should comprise sufficient numbers of the independent and non-executive members that are concerned with activities and actions that might contain a conflict of interest, such as determination of remuneration, appointment of CEO, and integrity of financial and non-financial reports (KSA's Corporate Governance Regulations, 2006). The three common committees in Saudi publicly held companies are audit committee, nomination and remuneration committee, and executive committee.

Audit committees. According to KSA's Corporate Governance Regulations (2006), the board of directors should form an audit committee and its member should not be less than three, among them a specialist in accounting and financial matters. The committee members should be independent or non-executive directors. The shareholders general assembly should issue the rules for the formation and appointing the audit committee members and identify the duration and procedure to be followed by the committee. The key duty of the audit committee is to review the internal accounting system and control process, as well as hold meetings with the external auditors regularly to review financial statements (Cohen, Hoitash, Krishnamoorty, & Wright, 2014; Maztoul, 2014; Samaha & Abdallah, 2012).

Consistent with the agency theory, an independent audit committee acts as an additional monitoring mechanism that makes sure that the interests of shareholders are

protected (Ahmed & Gábor, 2012). Accordingly, the audit committee mechanism improves the monitoring of management and communication between external auditors and the board (Samaha & Abdallah, 2012). Audit committee plays an important role in enhancing company performance and value by implementing the principles of corporate governance, though Nuryanah and Islam (2011) revealed a negative relationship of an independent audit committee when the members have accounting and finance qualification, and performance. This is inconsistent with the recommendation of the best practice for sound corporate governance (Cohen et al., 2014; Nuryanah & Islam, 2011).

The independence principles require that the audit committee should work independently and discharge its duties and responsibilities with professional care (Gill & Obradovich, 2012). Audit committee independence allows its members to challenge the executives' decisions because of a lack of a personal relationship with firm's managers (Darus & Mohamed, 2011). The audit committee helps alleviate agency problems through monitoring mechanisms that improve the flows of information quality between firm shareholders and managers (Gill & Obradovich, 2012). However, the previous studies revealed mixed findings with respect to the relationship between the audit committee and its member independence, and financial information reliability and internal control. Some researchers found a positive relationship between the reliable financial information and independent audit committees; whereas some researchers concluded that the independent audit committee did not improve the reliability of financial information (Maztoul, 2014; Rambo, 2013; Rouf, 2011). Others found a

positive association between sound internal control and the presence of audit committee independence. The financial specialist of audit committee increases the likelihood that material misstatements will be detected and corrected in a timely fashion and discloses more information compared to firms without independent audit committee (Darus & Mohamed, 2011; Gill & Obradovich, 2012).

Nomination and remuneration committees. According to KSA's Corporate Governance Regulations (2006), the board of each publicly listed company shall set up a committee of nomination and remuneration. The shareholders general assembly shall issue rules for appointment of the committee members, their remuneration, and committee duration, as well as the procedures to be followed by the members. The main responsibility and duty of nomination and remuneration committee is recommending to the board the appointment of board members. Also, the committee reviews the structure of the board and recommends the proper changes, reviews the skills of board members, spells out the strength and weakness points of the members, lays down clear policies regarding the remuneration and indemnity of top executives and board members, and finally ensures the independence of the board members and the absence of any conflict of interests related to the members (KSAs Corporate Governance Regulations, 2006). Reddy and Locke (2010) found a positive association between the existence of a nomination and remuneration committee and both firm performance and value, but they noted this relationship is not considerably significant.

Executive committees. The board of directors may create a committee to be named executive committee (KSA's Corporate Governance Regulations, 2006). This committee may meet to make decisions about issues that arise between scheduled board meetings, as these issues should not be postponed until the next scheduled meeting of the board. The main responsibilities and duties of the executive committee are to provide organizational direction on behalf of the entire board and make decisions ranging from policy, strategy planning, investment and risk, and then report upward its actions to the entire board. Furthermore, executive committee may be responsible for other duties, such as evaluating company executive directors. However, this committee does not have authority regarding certain actions, such as dividend distributions, merger or sale of corporate assets, appointing or removing directors and officers, amending article of association, or determining committee members' compensation.

Ownership structures. Ownership structure is one of the most important factors in corporate governance mechanisms, which shapes governance system of any country, as this factor identifies the nature of the agency problem. Ownership structure is important in laying down the discipline of managers, company's objectives, and shareholder wealth. Corporate governance rules both shareholders and managers to have unified goals and objectives of maximizing company performance and value (Ibrahim & Samad, 2011; Liao, Shyu, & Chien, 2014). There exist two important aspects of firm ownership structure as composition and concentration. Ownership composition determines who the shareholders are and who belongs to the controlling groups

(Mangunyi, 2011; Sáenz González & García-meca, 2014). According to agency theory, the better overlap between shares ownership and business control result in mitigation in conflicts of interests, thereby increasing organization value (Mangunyi, 2011).

The degree of ownership concentration in a company identifies how power and authority are distributed between the managers and shareholders. Concentrated ownership considers the proportion of the company shares owned by the greatest shareholders, which may tend to exert pressures on managers to adopt a corporate behavior maximizing their wealth (Ojo, 2014; Vintila & Gherghina, 2012). However, there are competing arguments between alignment theory and expropriation theory on whether ownership concentration is beneficial or detrimental to the company outside shareholders (Leung & Horwitz, 2010).

As per the alignment theory, when the ownership is concentrated in the hand of some shareholders, shareholding control tends to be sound and agency cost would be less. Accordingly, ownership concentration plays a significant role in controlling and monitoring a firm's management, as a result, the interests of both shareholders and management are aligned. Therefore, the ownership disperses leads to poor shareholder monitoring. The shareholders with small stakes are less likely to be active and interested in monitoring activities because they would bear high monitoring costs and get less benefits (Mangunyi, 2011). As per the exploitation theory, there is a problem with the ownership concentration, as controlling shareholders who may act in their own interests would exploit minority shareholders. The ownership concentration enables the

shareholders who have a significant stake in a company to appoint and fire managers that will hinder them from external control mechanisms. Therefore, ownership concentration intensifies the conflict of interest between minority and majority shareholders (Leung & Horwitz, 2010; Soltani, 2014). The previous studies produced mixed results with respect to the relationship between the ownership concentration and firm performance (Leung & Horwitz, 2010).

The check and balance of ownership is very important governance mechanism in solving the ownership concentration debate and improving firm performance (Mangunyi, 2011). The check and balance of ownership exists when many large shareholders share the control and monitor for a firm. Accordingly, no one major shareholder of the firm can solely monitor the business and the process of decision making, rather, the decision making is done through the coordination and negotiation among several large shareholders, leading to good performance (Mangunyi, 2011).

There are three different kinds of ownership in KSA as managerial ownership, foreign ownership, and government ownership. Agency theory assumes that the managerial ownership can help mitigate agency conflicts between shareholders and managers, because the manager who owns the significant portion of the firm shares has more motivation and incentives to make better decisions to maximize firm value. Contrary to agency theory, managerial ownership may make value-reducing decisions to protect their interests in the company regardless the interests of outside shareholders, and hence communication and coordination problems would increase, resulting in reducing

the company value (Garcia-Meca & Juan Pedro, 2011). However, the empirical research with respect to the relationship between managerial ownership and both firm performance and market value are mixed (Ghazali, 2010). If the ownership structure of a firm contains a large proportion of shares held by foreign shareholders, indication are that foreign shareholders have confidence in the performance of that firm, leading to positive effect on market value.

Previous studies found that firms with a higher portion of foreign shareholders disclosed significantly more operating and financial information in their annual report in order to attract more investors (Ghazali, 2010). Government ownership is another common feature of the business environment in KSA. The government ownership in publicly listed companies in KSA ensures close control and monitoring of the activities of these companies. The government monitoring would lead to ongoing success of these companies, so that the stability of stock market and economy is met. Thus, it may be expected that these companies may perform better than others. However, the results of previous studies on the relationship between government ownership and both firm performance and market value are mixed as are kinds of ownership structure (Ghazali, 2010).

In KSA, the ownership was found concentrated, particularly in family companies. Moreover, boards of directors are more dominated by the majority of shareholders to the extent that their effectiveness in monitoring decision making process is doubtful. In

KSA, Stakeholders, other than shareholders, sound to be marginalized in the actual practice of firms (Habbash & Bajaher, 2014; Piesse et al., 2012).

Executive compensation. Executives with no or little ownership stake in the companies they run have little incentive and motivation to manage the company in a manner consistent with the owners interests. This conflict is essentially contractual in nature that can be solved through executive compensation combined with board of directors and capital market oversight (Carney, Gedajlovic, & Sur, 2011). Executive compensation is a tool designed to strengthen the ability of board and shareholders to control management actions (Campbell, Ghosh, Petrova, & Sirmans, 2011). Executive compensation can include basic salaries and variable compensations, such as share options, dividends, and bonuses, as well as fringe benefits (Lin, 2010). Consistent with agency theory, executive compensation is an important factor of internal corporate governance mechanisms, which can reduce agency conflicts between shareholders and executives (Mangunyi, 2011; Nuryanah & Islam, 2011).

Shareholders can use compensation schemes for rewarding the managers financially to align company interests with shareholder interests. The schemes include plans where executives get shares, mostly at a discount price. Furthermore, these schemes may link levels of benefits and executive compensation to firm value and shareholders returns; part of this compensation is deferred to the future to reward long-term value maximization. A significant portion of executive compensation must be "locked" in for a period ranges from 5 to 10 years and based upon the achievement of

long-term success of the firm (Alam, Chen, Ciccotello, & Ryan, 2014). Such schemes hinder short-term managers' actions, which can be detrimental to firm value (Syriopoulos & Tsatsaronis, 2012). Thus, firms can resolve agency problems and maximize their values via compensation systems (Lin, 2010).

Some previous empirical studies found that increasing executive compensation can directly improve firm performance based on supervision mechanisms (Lin, 2010). Furthermore, they found a positive association between executive compensation and firm share prices. However, others found no association between executive compensation and corporate performance (Lin, 2010).

Corporate Governance Indexes

There are no generally accepted corporate governance mechanisms by the different countries. Furthermore, management scholars use different corporate governance definitions, instrumentations, and indices depending on the researcher's interest and purpose (Bonna, 2011; Mulili & Wong, 2011). Therefore, several indexes have been used to measure corporate governance mechanisms.

Gompers et al. (2003) created a G-Index as a measure of corporate governance and the strength of shareholder rights using corporate takeover defenses, bylaw provisions, and firm rules. The G-Index varies from 0 to 24 (Alimehmeti & Paletta, 2014). Each parameter of shareholder rights is given a zero/one score. Zero shows no particular limitation on shareholder rights, whereas a one indicates the existence of a limiting provision. A lower number shows greater management entrenchment, less

transparency, and existence of more provisions limiting shareholder rights. A higher number shows a greater emphasis on shareholder rights, a relative absence of management entrenchment provisions, and greater transparency of information and processes (Alimehmeti & Paletta, 2014). Thus, a higher G-Index is combined with robust shareholder rights and higher financial performance; whereas a lower G-Index is combined with weak shareholder rights, lower financial performance, and lower market value. This index does not accurately reflect the relative impacts of the various provisions. In addition, it does not require any judgments about the effectiveness or wealth effects of any of these provisions; it only considers the impact on the balance of power.

Brown and Caylor (2004) also constructed governance composite indexes using publicly available data compiled by Institutional Shareholder Services (ISS). This governance index composite score was identified as G-Index (GI). The results showed that higher indexes show higher firm value (Tobin's Q) and higher market return, and better financial and operating performance (ROA and ROE). Brown and Caylor calculated the index from 52 of the variables, which firm characteristics and governance provisions including executive compensation and executive mandatory retirement age. The feasible range of scores is 0 to 52 with each variable equally weighted by "1". A higher index score is associated with more robust corporate governance effectiveness, with a G-Index of 51 being the highest.

Bebchuk, Cohen, and Ferrell (2004) developed an E-Index based on IRRC publicly available data. Bebchuk et al. used a 6-provision subset of the G-Index. The index ranges from 0 to 6. A lowest score of 0 is related to high shareholder rights, whereas a highest score of 6 is related to weak shareholder rights. Consistent with G-index, E-index gives an equal weight to each of set provisions by assigning one point to each of the provision a firm has.

In addition, the Corporate Library, a leading independent source for corporate governance data constructed a governance index. The benchmark score of this index is based on board composition, board classification, board tenure, board size, boards interlock, open adoption of corporate governance policies, CEO compensation structure, and the age of directors' retirement. The index ranges from a low of 0 to a high of 100. The index is developed by overweighting the data believed to most likely impact governance practices (Bonna, 2011).

Corporate Governance Effect on Financial Performance and Market Value

Theoretically, good corporate governance can achieve better financial performance and value in both developed and emergent markets. Financial performance and market value have several dimensions, including asset quality, capital adequacy, returns on capital, and share price among other parameters (Rambo, 2012). Also, financial performance and market value are impacted by several factors other than corporate governance. These factors are sales growth, technology, environment, legal and social environment, macroeconomic, liquidity, firm size, leverage, management

competence, qualified employees in the top managerial staff, and so on (Bonna, 2011). In this section, the findings of the previous research with respect to the relationship between corporate governance and both corporate performance and market value are explored.

The relationship between corporate governance and firm performance. The literature of corporate governance in developing and developed countries provided controversial findings regarding the relationship between corporate governance, and the company economic and financial performance (Coskun & Sayilir, 2012). Various researchers have linked corporate governance to performance of corporate entities, but the results are not convergent (Abels & Martelli, 2011; Chahine & Safieddine, 2011; Coskun & Sayilir, 2012; Ivashkovskaya & Stepanova ,2011; Lama, 2012; Moradi, Aldin, Hevrani, & Iranmahd, 2012; Nicolaescu ,2012; Nuryanah & Islam, 2011; Pelayo-Maciel et al., 2012; Rambo, 2013; Ştefănescu, 2014; Ur Rehman & Mangla, 2012; Vintila & Gherghina, 2012).

Most researchers revealed that the corporate governance is an important ingredient for the overall growth of the firm performance, as well as the country's economy (e.g., Abels & Martelli, 2011; Chahine & Safieddine, 2011; Ivashkovskaya & Stepanova ,2011; Lama, 2012; Moradi, Aldin, Hevrani, & Iranmahd , 2012; Nicolaescu ,2012; Nuryanah & Islam, 2011; Pelayo-Maciel et al., 2012; Rambo, 2013; Ştefănescu, 2014). The results drawn by different researchers are positive and direct, as corporate governance plays an important role in enhancing the performance of the firm (Abels &

Martelli, 2011; Chahine & Safieddine, 2011; Ivashkovskaya & Stepanova ,2011; Lama, 2012; Moradi, Aldin, Hevrani, & Iranmahd , 2012; Nicolaescu ,2012; Nuryanah & Islam, 2011; Pelayo-Maciel et al., 2012; Rambo, 2013; Ştefănescu, 2014). However, some researchers also had drawn negative and indirect results, as well as neutral and mixed relationships (Ahmed & Gabor, 2011; Bagchi, 2011; Hassan Al-Tamimi, 2012; Ibrahim et al., 2010; Mangunyi, 2011; Pandya, 2011; Peni & Vahamaa, 2012; Vintila and Gherghina, 2012). For the purpose of this study, I reviewed 39 empirical researches; 25 studies showed a positive relationship, one showed a negative relationship, four showed a neutral relationship, and nine revealed a mixed relationship between corporate governance and financial performance.

Positive relationships. The majority of researchers have supported the positive relationship between corporate governance and financial performance (Abels & Martelli, 2011; Chahine & Safieddine, 2011; Ivashkovskaya & Stepanova ,2011; Lama, 2012; Moradi, Aldin, Hevrani, & Iranmahd , 2012; Nicolaescu ,2012; Nuryanah & Islam, 2011; Pelayo-Maciel et al., 2012; Rambo, 2013; Ştefănescu, 2014). Martani and Saputra (2009) used the mean equality test and multiple regression to examine the effect of corporate governance to the performance of the firm measured by Economic Value Added (EVA). Martani and Saputra found that the corporate governance has a significant impact on EVA. However, the corporate governance index is superior in affecting ROE more than ROA and EVA.

Leung and Horwitz (2010) used a regression model to examine the effects of management ownership and other corporate governance variables on Hong Kong firms' stock performance following the Asian Financial Crisis (1997–98). The results showed that firms with more equity ownership by non-executive directors, along with the duality of CEO/chairman position experienced a smaller stock price decline. By testing companies' responses to the nine high level principles and guidelines promulgated by New Zealand Securities Commission (NZSC), Reddy and Locke (2010) addressed the relationship between corporate governance practices, which based on the principles, and the financial performance of large publicly traded firms. Panel data for the top 50 companies listed on New Zealand capital market over the period 1999-2007 were used and analyzed using two stage least squares (2SLS) regression techniques and ordinary least squares (OLS). The findings revealed a positive relationship between the NZSC recommendations and firm performance, as well as remuneration committee and firm performance (Reddy & Locke, 2010). This study provided a comprehensive picture of performance outcomes that have not been achieved in previous studies.

Using the classic model approach, Ivashkovskaya and Stepanova (2011) examined the impact of ownership structure, board of directors' activity, and capital structure on corporate performance. The results of the study found that the board's composition and the investors with significant voting power affect firm performance positively. In addition, the results found the impact of government ownership varies

depending on the country, while the independent directors and related shareholders seem add more value to corporations.

Nuryanah and Islam (2011) examined the impact of the corporate governance mechanisms and corporate financial performance in Indonesia. Nuryanah and Islam assumed that the results on the impact of corporate governance mechanisms on the corporate performance, which is relevant to developed stock markets, were not appropriate for emerging stock markets, because the cultural and political environments are different between the two markets. The findings of the study revealed that all internal corporate governance mechanisms except size of both audit committee and board, and management ownership have a significant relationship with firm performance (Nuryanah & Islam, 2011).

Abels and Martelli (2011) investigated the compliance status within the largest 500 firms in the United States to uncover the status of the extent in which CEO duality exists within the US. The results revealed little evidence to support that a two-tier system improves sales revenue, profits, or shareholder returns. Despite the large sample, the findings cannot be generalized on the medium and small revenue-producing firms, because the sample was selected among the top revenue-producing firms. Also, Chahine and Safieddine (2011) investigated the relationship between board size and its composition, and bank performance in Lebanon using a fixed-effect model. Chahine and Safieddine used 749 firm years of data from 1992 to 2006. The results found that the bank performance is positively related to board size and board independence.

Using a sample of 54 firms listed companies on the Nairobi Stock Exchange (NSE), Ongore and Kobonyo (2011) examined the interrelations among ownership, board and manager characteristics, and firm performance. PPMC, logistic regression, and stepwise regression were used to achieve the purpose of the study. The findings found a significant positive relationship between corporate performance, and institutional, insider, foreign and diverse ownership forms, as well as managerial discretion, whereas the relationship between corporate performance, and government and ownership concentration was significantly negative (Ongore & Kobonyo, 2011). In the same year and based on empirical analyses of 11 large Tunisian commercial banks during 1997-2006, Rachdi and Ines (2011) analyzed board characteristics and its effect on performance and incentives to take the risk in the banking industry. The results found that bank board structure is a determinant factor for bank risk taking and bank performance, which supported the idea, commonly accepted.

Lama (2012) used the Pearson correlation to test the association between firms' corporate governance structure and a firm's operating outcomes. Mid-sized Australian ASX firms were used to proxy the sample companies' corporate governance quality. Lama found significant positive relationships between a firm's operating performance and the mid-size companies who did not implement corporate governance well adversely affected their shareholder returns.

Using a sample of 84 publicly listed companies on Tehran Stock Exchange from year 2007 to 2011, Moradi et al. (2012) investigated the effects of financing activities and

corporate governance mechanisms on firms' performance. The authors concluded that financing decisions, capital structures, and corporate governance are affected by companies' performance (Moradi et al., 2012). Capital structures and corporate governance can increase profitability and shareholder's value in the long term.

Nicolaescu (2012) analyzed and discussed the impact of corporate governance mechanisms on company performance in China during the crisis. Nicolaescu concluded that the corporate governance mechanisms, corporate board, and ownership structure affect company performance. Using a sample of 43 publicly listed companies on Indonesia Stock Exchange from 2007 to 2009, Nuryaman (2012) examined the impact of corporate governance practices on the firm's financial performance. Nuryaman used multiple linear regression and concluded that corporate governance has a positive effect on both stock performance and firm's operational performance.

Furthermore, Shah et al. (2012) examined the relationship among the corporate governance, firm's performance, ownership structure, and the firm's risk taking behavior. Using regression models, the authors found that the improvement in the corporate governance practices has a positive effect on both the company's financial performance and the decreases in the risk level, whereas, corporate governance has a negative relationship with the concentration of ownership (Shah et al., 2012). Using data of 43 shipping firms listed on two major US stock exchanges, NASDAQ and NYSE, Syriopoulos and Tsatsaronis (2012) investigated the relationship between CEO duality and corporate financial performance of shipping firms. The results of the study found a

positive relationship between CEO separation and corporate financial performance of shipping firms; these findings support agency theory.

Moreover, Koncevičienė et al. (2012) examined the relationship between the introduction of new EU directives regulating corporate governance issues and the capital markets performance of EU countries. The authors selected three EU countries as representative of developed markets and emerging market; Germany and United Kingdom represented the developed markets, while Lithuania represented the emerging markets. Koncevičienė et al. (2012) found that developed capital markets, represented by Deutsche Börse and London SE demonstrated the increasing change tendencies of their indexes and other performance indicators of these capital markets till the end of 2007 when the world financial crisis happened. In addition, the results showed that developed markets represented by Germany and United Kingdom demonstrated better performance after the transposition of the directive (Koncevičienė et al., 2012). However, these findings cannot be generalized, because of the limited number of EU countries.

Pelayo-Maciel et al. (2012) discussed the effect of the structure of corporate governance on financial performance and human resource management in Colombia. The authors analyzed the concept and structure of corporate governance, and discussed both the stewardship theory and agency theory. Pelayo-Maciel et al. (2012) found that the structure of corporate governance can positively affect the functioning of the firm itself and improve its financial performance. Also, Chou and Hardin (2012) investigated whether firms with strong governance generate higher returns, as well as examined the

association between mutual fund corporate governance preference and fund performance segmented by fund investment style. The sample period was from 1990 to 2008 and data obtained from three sources: The corporate G-index was from the IRRC, stock returns were from the CRSP stock file, and mutual fund returns and fund characteristics were from the CRSP Survivor Bias-Free U.S. Mutual Fund Database. A direct relationship was found between overall mutual fund corporate governance preference and the corporate governance premium. There is evidence that the investment preferences of mutual funds forecast the change in the corporate governance premium and investment activities of institutional investors can affect stock performance (Chou & Hardin, 2012).

Dimitropoulos and Tsagkanos (2012) examined the impact of corporate governance quality on the profitability and viability of European Union's football clubs over the period 2005-2009. Dimitropoulos and Tsagkanos found that the corporate governance quality leads to greater levels of profitability and viability. However, the results of this study cannot be generalized, because the data set covered a single sport activity (football) and was restricted within a specific region (EU).

Ergin (2012) investigated whether or not investors considered the ranking of corporate governance when evaluating the share price, as well as the entire effect of corporate governance on the share price. A price model was used to examine all the rated firms quoted to ISE for the years 2006 to 2010. The financial performance and accounting performance were found significantly and positively associated with the corporate governance rankings. The components of corporate governance that have a

positive and significant association with the financial performance are stakeholders, public disclosure, and transparency.

Reyna (2012) studied the relationship between ownership structure and performance of 90 companies listed on the Mexican Stock Exchange for the period 2005-2009, excluding companies that do not include enough information in their financial statements, non-profit companies, and financial institutions. Reyna (2012) founds that the ownership concentration significantly affects the company performance. The corporations with high levels of ownership concentration seek a better way to protect and maximize their interests, but this high concentration, especially in family companies, leads to the use of additional corporate governance mechanisms. Tin-yan and Shu-kam (2012) examined the relationship between board committees and firm performance and the moderating effect of family ownership for public companies in Hong Kong. The sample comprised of 346 firm-year observations for the periods 2001-2003. The authors found a significant relationship between a nomination and remuneration committee and company performance, depending on the independence of its composition (Tin-yan & Shu-kam, 2012).

Rambo (2013) used one-way ANOVA, multiple regression models, and Pearson's correlation coefficients to examine the relationship between corporate governance factors and the financial performance of Kenyan commercial banks. Rambo found a positive relationship between corporate governance and bank performance, but unlisted and listed commercial banks were significantly different in terms of financial performance and

other factors. Doğan, Elitaş, Ağca, and Ögel (2013) examined the impact of CEO duality on the firm performance using a sample of 204 traded companies on Istanbul Stock Exchange from the years 2009-2010. The authors found a negative relationship between CEO duality and company performance, which is consistent with the agency theory (Doğan et al., 2013). The shareholders would get a better return in companies that have separate CEO and chairperson positions in terms of share of profit and price.

Ştefănescu (2014) analyzed the relationship between corporate governance and both corporate performance and strategies of banking institutions at European Union level. The findings of the analysis revealed that corporate governance has positive effect on bank performance measured by ROA and ROE. However, these findings cannot be generalized, because of the limited number of independent factors, restricting the sample to the banks, and the use of a one year of data for analysis.

Negative relationships. Using the cross-sectional multiple linear regression models, Vintila and Gherghina (2012) examined the relationship between corporate governance ratings and firm performance. The models included both a global measure of corporate governance and four sub-indices as corresponding audit, board structure, and shareholder rights and compensation, provided by Institutional Shareholder Services (ISS). Vintila and Gherghina found a negative relationship between firm performance and corporate governance global rating. The findings also showed a negative relationship between firm performance and corporate governance sub-indices, with some exception.

However, when the authors excluded the firms belonging to real estate and financial sector, the results supported the same findings.

Neutral relationships. Several other studies have found neutral relationships between corporate governance mechanisms and financial performance. Ghazali (2010) evaluated the impact of the implementation of the new regulations of Malaysian government on corporate performance. Ghazali used data of 87 non-financial listed companies included in the composite index; the data were extracted from the year 2001 annual reports. Ghazali found no one of the corporate governance variables was statistically significant in explaining corporate performance. However, the government as a substantial shareholder and foreign ownership were statistically significantly associated with corporate performance. The results of this study were limited and cannot be generalized, because the regulations on corporate governance were implemented in 2001, so it was early to reach a proper conclusion for the financial year 2001 as regulatory changes may take several years before they show positive or intended results.

Bagchi (2011) examined whether corporate governance affects market returns. Bagchi used descriptive statistics, vector auto-regression, and ordinary regression; as well as conducted a test of significance for means and variances of the series. The effect of economic shocks on the capital market performance of the higher governance index firms was found similar to moderate and low governance indexed firms (Bagchi, 2011). These results disagreed with the results of some previous research, which found that a portfolio containing sound corporate governance companies had gained more investment return as

compared to the return of a portfolio containing weak corporate governance firms (Bagchi, 2011).

Using a sample of twelve banks out of which there are eight public sector banks and four private sector banks, Pandya (2011) examined the effect of corporate governance structures on the corporate performance. Data were obtained from the annual reports of the selected Indian banks from the websites of the banks for two different periods: Year 2005-06 and 2008-9. Pandya founded no significant impact of the corporate governance structures on the banks' financial performance. However, the results obtained are restricted and cannot be generalized because of sample size is small.

Finally, Coskun and Sayilir (2012) examined the relationship between corporate governance, and both company value and profitability performance of Turkish companies. The authors found no significant relationship between corporate governance and financial performance. However, the study findings are limited because of using only observation of 31 companies of different periods, 2006-2010 (Coskun & Sayilir, 2012).

Mixed relationships. By taking a sample from Canadian Businesses ' rankings of the top 25 worst board of directors and the top 25 board of directors for 2007, Stanwick and Stanwick (2010) examined whether a good corporate governance yields higher financial performance than poor corporate governance for Canadian firms. Stanwick and Stanwick found that the effects of firm board on firm performance are mixed and discovered a positive association between the board of directors with a high

accountability level and firm performance, while found a significant negative relationship between board independence and financial performance. In general, the authors revealed that the overall corporate governance helps improve the financial position of the companies (Stanwick & Stanwick, 2010). However, the results of this study were limited and cannot be generalized, because the sample was small.

Using a sample of 40 bank managers within Nairobi City in Kenya, Mangunyi (2011) examined the impact of corporate governance, in particular ownership structure, on Kenyan's bank performance. Mangunyi used a semi-structured questionnaire which consisted of both closed and open-ended questions. The author found a significant difference between corporate governance and financial performance of banks, whereas no significant difference between the ownership type and bank performance, and between corporate governance practices and banks ownership structure (Mangunyi, 2011).

Ahmed and Gabor (2011) examined the impact of corporate governance mechanisms on corporate financial performance of 27 listed banking companies in Bangladesh for the period of 2003-2008. Ahmed & Gabor found no significant effect of corporate governance mechanisms on financial performances, while found an insignificant negative effect of independent directors and non-independent non-executive directors on the level of bank performance. Ahmed and Gabor recommended that companies should balance between corporate governance mechanisms and their performance by adopting risk management and strategic decision, along with efficient utilization of company's resources.

Vintila and Gherghina (2012) examined the effect of CEO characteristics and corporate governance mechanisms on U.S. listed firms' performance using a random sample of 155 U.S companies for year 2011. Vintila and Gherghina used the cross-section multiple linear regression and found mixed results between corporate governance and firm performance. Vintila and Gherghina found a positive relationship between insider shareholdings and price-earnings ratio and, and also found no significant relationship between firm performance and the number of independent directors from the board, and there were mixed findings with respect to the relationship between corporate performance and board size.

Abels and Martelli (2012) examined the independence of CEO and Chairmen, which can impact both the perceived independence of management and company performance to compliment the literature. Abels and Martelli selected the top 500 companies in the U.S. in terms of sales revenue. Abels and Martelli found that CEO duality was neither important nor significant to corporate performance. Abels and Martelli also found that CEO age was important and significant to corporate performance. Hassan Al-Tamimi (2012) investigated the impact of corporate governance on UAE national banks' performance and financial distress. The study population included the heavy banks involved in corporate governance of the UAE national banks. Hassan Al-Tamimi found a significant positive relationship between financial distress and corporate governance practices of UAE national banks and no significant relationship between corporate governance and performance level.

Furthermore, Peni and Vahamaa (2012) examined whether or not the sound corporate governance mechanisms of the banks were associated with better stock market performance and higher profitability amidst the crisis of 2008. The selected sample consisted of 62 large publicly traded U.S. banks and 248 firm-year observations for the years 2005–200 8 (Peni &Vahamaa, 2012). Peni and Vahamaa found that the effects of corporate governance on bank performance are mixed. Strong governance may have negative effects on stock market values of banks amidst the crisis; despite the findings revealed a strong relationship between the corporate governance mechanisms and the high profitability in 2008 of the banks. However, Peni and Vahamaa contended that strong corporate governance may have alleviated the adverse impact of the financial crisis on bank credibility.

Ur Rehman and Mangla (2012) investigated the relationship between corporate governance variables and the firm performance of thirty banks in Pakistan for the period of 2001-2009. Ur Rehman and Mangla found a significant effect of corporate governance variables, especially board size, on the performance of the overall banking sector in Pakistan, whereas no significant effect of corporate governance practices on the foreign banks performance. Further studies are recommended to generalize these results by increasing the sample period and replacing or increasing the different corporate governance variables of the study.

Using a sample of nine banks in Nigeria for years 2006 to 2010, Onakoya et al. (2014) investigated the relationship between corporate governance and financial

performance using ordinary least square (OLS) regression analysis. The authors found that the ownership structure and board size positively affect ROE, whereas corporate governance indicator has negative effect on the assets of the banks. However, the authors found that the relationship between board composition and banks profitability was insignificant. Furthermore, the authors showed that both economic conditions factors and regulatory influence have insignificant effect on ROA and ROE (Onakoya et al., 2014). Onakoya et al. (2014) recommended that government agencies and regulators should ensure stability in the country macroeconomic environment.

The relationship between corporate governance and firm value. Similar to the relationship between corporate governance and firm performance, most corporate governance scholars found that the corporate governance is an important factor for the firm value. Most of the researchers found a significant and positive relationship between corporate governance and firm value, as corporate governance plays an important role in enhancing the value of the firm. Among eight empirical research articles reviewed, six researchers found a positive relationship (Berthelot et al., 2010; Gill & Obradovich, 2012; Kumar & Singh, 2012; Shin-Ping & Hui-Ju, 2011; Yang, 2011; Zerni, Kallunki, & Nilsson, 2010), while two researchers found a mixed relationship between corporate governance and market value (Coskun & Sayilir, 2012; Garcia-Meca & Juan Pedro, 2011).

***Positive relationships*.** Berthelot et al. (2010) examined whether the corporate governance rankings published by market information intermediary were reflected in the

values that investors accorded to firms. The study sample composed of 289 firms covered by the Globe and Mail corporate governance ratings for years 2002 to 2005. The authors used a price model relating share price to book value of equity (BVEjt) and current net income (NIjt). The author found a significant relationship between the corporate governance rankings and firm market value and accounting results (Berthelot et al., 2010). However, the results of this study are limited cannot be generalized, because the potential interrelations between contextual variables and corporate governance practices were not taken into account.

Zerni et al. (2010) investigated the effectiveness of two main corporate governance mechanisms, the auditing and board of directors, in alleviating the equity discounts that arise from the potential entrenchment problem between inside shareholders (managers) and outside shareholders. The sample of this study consisted of 1,171 firm-year observations for years 2000-2006; these firms listed on the SSE (Zerni et al., 2010). The authors found both higher quality auditors and boards with equity incentives may act as effective governance mechanisms with positive valuation implications (Zerni et al., 2010).

By taking data from publicly traded firms in Taiwan, covering a ten-year period from1995-2004, Shin-Ping and Hui-Ju (2011) examined the relationships among CEO compensation, ownership, and firm value. Shin-Ping and Hui-Ju found that CEO compensation, CEO ownership, and firm value are related. Furthermore, institution ownership, firm value, firm size, board size, and CEO ownership are positively

interdependent with CEO compensation. Shin-Ping and Hui-Ju contended that the proper compensation package of executives could decrease agency costs between managers and shareholders. As the previous studies provided inconclusive results on the relationship between corporate governance structure and firm value, Yang (2011) examined the impact of corporate governance on firm value in Canada. The author found that the connection between firm value and corporate governance is sensitive to the methodology employed. The author also found that adopting high-standard corporate governance may increase firm value (Yang, 2011).

Kumar and Singh (2012) investigated if the monitoring by independent director and grey director (non-executive non-independent) affects firm performance. The authors examined the relationship between outside directors and the efficacy of the boards of 157 non-financial Indian firms. These firms listed on Bombay Stock Exchange in the year 2008. The data obtained and extracted from the Prowess database of Centre for Monitoring Indian Economy and corporate governance reports annexed to annual reports. The authors revealed that the proportion of grey directors on the board has marginally deteriorated effect on firm value, whereas the proportion of independent directors has an insignificant positive impact on market value of forms (Kumar & Singh, 2012). Therefore, the independent directors should have a greater representation on the board instead of other non-executive outside directors. Using a sample of 333 publicly listed companies on New York Stock Exchange for a period of 3 years from 2009-2011, Gill and Obradovich (2012) examined the effect of financial leverage and corporate

governance on the value of American companies. CEO duality, insider ownership, company size, the audit committee, returns on assets, and financial leverage were found positively impact the value of U.S. firms, whereas the larger board size negatively impacts the value of U.S. firms (Gill & Obradovich, 2012).

Mixed relationships. Garcia-Meca and Juan Pedro (2011) examined the effects on Tobin's Q of several dimensions of ownership structure in Spain likely to represent conflicting interests: These dimensions are ownership concentration, bank ownership, and insider ownership. The authors used a sample of non-financial traded firms listed on the Madrid Stock Exchange during 1999-2002. Garcia-Meca and Juan Pedro found a positive relationship between ownership concentration and firm value, but the high levels of large shareholder ownership negatively affect the market value.

Finally, Coskun and Sayilir (2012) investigated the relationship between corporate governance and company value of Turkish firms using a regression model. The authors found no significant relationship between corporate governance and company value (Coskun & Sayilir, 2012). On average, a sound set of corporate governance policies, principles, and practices positively affects the company value; thereby the companies should improve their corporate governance system before becoming investable to maximize the market valuation gains. Good corporate governance standard along with a dual listing in a country enhances a firm’s corporate governance, thereby increase the market value (Ionescu, 2012).

Transition and Summary

In Section 1 of this study, I addressed the fundamental issues that have led to the need for corporate governance's progress as an emergent demand. Furthermore, Section 1 covered the key reasons for examining the relationships of corporate governance with corporate financial performance and market value in KSA's publicly listed companies. In Section1 I described the general problem and specific business problem of the study. The general business problem is the controversial findings from previous studies failed to provide consensus with respect to the relationships between corporate governance, and financial performance and firm's market value; these divergent findings may undermine business leaders' adherence and compliance with the best corporate governance practices. The specific business problem is that some business leaders of KSA publicly listed companies do not have sufficient knowledge of the relationship between corporate governance mechanisms, financial performance, and market value to determine the relevance and importance of developing and implementing corporate governance rules and regulations.

The theoretical framework of this study is based on two theories: Agency theory and institutional theory. The theoretical underpinnings of the study were addressed in the literature review through 4 main parts that frame the research questions and hypotheses. The literature review comprises (a) corporate governance theories, (b) the concept and definitions of corporate governance, (c) corporate governance mechanisms, and (d) corporate governance effect on financial performance and market value. In Section 2, I

addressed the study's proposed methodology to explain (a) research method and design, (b) population and sampling, (c) data collection, (d) date analysis technique, and (e) reliability and validity of the study. In Section 3, I presented and interpreted the findings obtained from the data process and analysis. I also presented (a) the conclusions, (b) applications to professional practice, (c) recommendations for actions and further study, and (d) the implication for social change intended for improving business practice.

Section 2: The Project

Proper implementation and sound enforcement of good corporate governance mechanisms are very important for the survival and growth of publicly listed firms (Mande, Ishak, & Idris, 2014). Robust corporate governance helps firms' leaders to meet their legal requirements and alleviate conflict of interests, as well as makes firms attractive to investors' capital. Examining and providing evidence on the relationship between corporate governance and both corporate financial performance and firm's market value may enable firms' executives to comply with the legal requirements of capital markets and develop socially responsible behaviors, which in return may help managers lower the cost of capital, and enhance market value and reputation for their firms (Bonna, 2011). This section presents a detailed description of the proposed study's methodology and design features.

Purpose Statement

The purpose of this quantitative correlational study was to examine the relationship between KSA corporate governance variables and financial performance and market value. The independent variables are corporate governance mechanisms (i.e. board size, board independence, board committees, shareholding ownership structure, and executive compensation) and the dependent variables are corporate financial performance and market value. Data sources were KSA Tadawul lists and other public records of 91 of the 116 companies for the years 2010-2014. Findings from this study are to help firms' leaders and boards to understand which variables are related to enhancing

their companies' performance and market value. Also, the legislators may benefit from the findings of this study in identifying the corporate governance mechanisms that can promote economic growth for the benefit of society.

Role of the Researcher

My role as the researcher was to (a) select the topic, (b) design the study, (c) collect the data, (d) provide peer-reviewed or seminal sources, and (e) plan the approach, as well as present (a) the summary, (b) conclusion, (c) recommendations, and (d) the social implications of the study integrated with the conclusion. The population for this study was the publicly listed companies in KSA for the time period 2010 to 2014. The choice of study sample was based on the availability of corporate governance data and trading years. Management scholars called this type of sampling non-probability of convenience sampling (Berete, 2011; Parlalis, 2011). All the 116 firms were considered for this study. However, I only used 91 firms because 25 of them have become publicly traded firms after 2010. These 25 companies do not have their 2010 corporate governance data and financial statements available. For multiple regression studies, researchers suggest using Tabachnick and Fidell's (2007) formula for establishing study's sample size: $N > 50 + 8(m)$. N is number of selected firms, while m is number of study's independent variables. The sample size of this study should be at least: $50 + 8(5) = 90$ samples. Therefore, the sample size of 91 firms was sufficient size for drawing generalization about the study's population as a whole.

I worked independently to ensure that the data sources are reliable and valid, as well as the collected data are analyzed, interpreted, and presented in an ethical manner. The data of corporate governance mechanisms, financial performance, and market value came from firms' printed or electronic annual reports and the Tadawul website amongst others. The biases in data collection can be avoided by clear and careful planning of data collection process, using multiple sources of data, choosing sample representing the population, and using proper measurement metrics. To ensure the reliability and validity of data and information in this study, I used standard procedure to collect secondary data and avoid the variation in collecting the primary data.

Researchers should fairly select the participants, protect the participants from any harm, and ensure the confidentiality of participants. Also, researchers should be honest and respectful to all individuals participating in the research (Berete, 2011). In this study, no human participants were involved. Therefore, participants' protection procedures and documents, such as confidentiality protocols and informed consent forms, as well as precautions for preserving the integrity and impartiality of participants were not required. Because there were no participants in this study, the Belmont Report did not apply.

In the Section 3 of application to professional practice and implications for change, I provided analysis descriptions and explained the characteristics of input variables related to corporate financial performance and market value, and ensured analyzing and interpreting the study's data in an ethical manner. I have worked as CFO, financial controller, finance manager, and auditor more than 24 years for various business

organizations and have accumulated expertise in corporate finance, financial analysis, corporate governance, and risk management; interfaced and experienced the corporate governance systems and mechanisms, corporate performance, and market value issues relevant to addressing the purpose and research questions for this study. This accumulated expertise helped me better understand and facilitate the whole study. My facilitating role ensured there was no bias to appear in data collection and sampling, and statistical analysis and interpretation.

Research Method and Design

There are three different types of approaches for conducting studies: qualitative, quantitative, and mixed methods. The three research approaches are considered in the procedures of choosing a proper approach for this study. The selection of research procedures should be in line with the research questions, therefore, the methodology may be quantitative, qualitative or a mixture of both approaches (Frels & Onwuegbuzie, 2013; Venkatesh, Brown, & Bala, 2013). The qualitative approach is appropriate if there have not been any studies conducted on a specific social problem or the study variables are not clearly identified. Quantitative approach helps test theories by examining the relationships among independent and dependent variables; the quantitative approach relies on collecting and analyzing numerical data (Berete, 2011). The mixed approach is appropriate if either the quantitative or qualitative approach is not sufficient or adequate to best address a specific research problem (Bonna, 2011). The qualitative approach was not suitable for this study because the purpose of this study was examining the statistical

relationships of the variables, rather than examining themes based on interviews. The mixed approach requires extensive data collection and the process for analyzing the data is time intensive (Stanley, 2011). Therefore, the best way to examine the study's questions was to use a quantitative method with secondary data analysis. The key characteristics associated with quantitative research are numbers, objectivity, and generalizability.

Research Method

In this study, I used the quantitative correlational research method to test the resulting hypotheses and answer the research questions. The quantitative research method mainly focuses on hypothesis and theory testing (Singleton & Straits, 2005). In quantitative research questions, researchers inquire about the relationships and differences among variables while in quantitative hypotheses, researchers drive the testing of the expected relationship among variables (Singleton & Straits, 2005; Wester, Borders, Boul, & Horton, 2013; Young, 2011). Researchers use quantitative method to examine the relationship among independent and dependent variables, which can be measured through instruments and/or secondary data, so the data can be analyzed and interpreted using statistical procedures (Singleton & Straits, 2005).

Pursuant to a post-positivist worldview, researchers use quantitative research to examine the associations or relationships between independent and dependent variables and pose the associations or relationships in terms of questions or hypotheses. Quantitative research is deductive and starts with a general case, and then moves toward

the specific (Singleton & Straits, 2005). According to the post-positivist worldview, researchers use the quantitative approach to form the relationships between independent variables and dependent variables as research questions and hypotheses, and then examine these relationships (Berete, 2011). There was alignment between this study and post-positivist worldview because the purpose for the study was testing the relationship between the corporate governance variables and corporate financial performance, as well as the relationship between corporate governance variables and market value of publicly listed companies in KSA. Post-positivist assumptions are more appropriate for quantitative methods than qualitative research methods. Therefore, a quantitative research method was the most suitable method to address this study, because the focus of the study was examining the relationship between independent variables (corporate governance variables) and dependent variables (corporate financial performance and market value).

Research Design

The most appropriate way to examine the relationship between corporate governance variables and both companies' performance and companies' value was to use a quantitative correlational research design. The focus of quantitative correlational design is examining possible relationships among variables (Stanley, 2011). A quantitative correlational design aligns with post-positivist worldview (Singleton & Straits, 2005). Post-positivist worldview is a good support for using scientific methods in understanding a complex social problem through using numerical measures and testing

hypotheses. A quantitative correlational design was best for the proposed study because the purpose for the study was investigating the relationship among known variables (Stanley, 2011).

The experimental design and quasi-experimental designs were not appropriate for this study. The experimental design is suitable for researchers examining cause-and-effect relationships. The quasi-experimental design is appropriate when the researcher wants assess the casual effect of an intervention on a target population of a study through control groups (Hamoudi & Dowd, 2013). The significant difference between correlational designs and both experimental and quasi-experimental designs is that correlation design does not imply causation and establishing causality by the manipulation of research independent variables is difficult or impossible (Stanley, 2011). Accordingly, a quantitative correlational design best serves the investigation of the relationship between corporate governance variables and both financial performance and market value.

The independent variables in the regression model were corporate governance mechanisms of (a) board size, (b) board independence, (c) board committees, (d) executive compensation, (e) and ownership structure. The dependent variables in the study were corporate financial performance and market value. I used ROA and ROE to measure the corporate financial performance. ROA and ROE are the most popular value-based measures of performance (Habbash et al., 2014; Taiwo Adewale & Adeniran Rahmon, 2014). ROA determines a firm's growth over the study period while ROE

compares one firm's profitability against the other firms' profitability for the same period. ROA and ROE are frequently used by analysts and investors who perceive that the higher return on equity and assets, the better the financial performance of the firm (Al-Matari et al., 2014; Habbash & Bajaher, 2014; Vo & Nguyen, 2014). Tobin's q was used as a measure of firm's market value, which is the most common measure in empirical corporate governance research, because it considers the risk and is not as likely to distort the findings as other accounting measures (Al-Matari et al., 2014; Habbash et al., 2014). Table 1 presents a summary of the study's independent and dependent variables names, measurement types, scale types, and measurement scales. These data were important for developing three multiple regression models of this study.

Table 1

Independent Variables, Measurement Types, Scale Types, and Measurement Scale

Variable name	Measurement type	Scale type	Measurement scale
Board size	Quantitative	Ratio	Assigning 1 point to each board member
Board independence	Quantitative	Ratio	The ratio of independent directors to the total board members
Board committees	Quantitative	Ratio	Assigning one point to each committee
Executive compensation	Quantitative	Ratio	Total monetary and non-monetary benefits issued to five senior executives
Ownership structure	Quantitative	Ratio	Total board members' shares divided by total shares
ROA	Quantitative	Ratio	Net income divided by total assets
ROE	Quantitative	Ratio	Net income divided by book equity
Tobin's q	Quantitative	Ratio	Market value of equity plus total book value of liabilities divided by total book value of assets

Population and Sampling

There were 163 companies listed on Saudi Stock Exchange. In this study, I excluded the firms belonging to financial and insurance sectors. The exclusion of

financial institutions and insurance companies was due to the different accounting standards applicable to these companies, making it difficult to compare the financial performance and market value against those of firms in other sectors (Ferreira Caixe & Krauter, 2014; Moradi et al., 2012). I used the remaining 116 publicly listed companies in KSA as the general population. The firms from the sample belonged to the remaining 13 sectors (Tadawul, 2015).

There are various sampling techniques, such as (a) purposive, (b) convenience, (c) simple random, and (d) stratified random sample. The choice of the study sample was based on the availability of the data and trading years. Researchers called this type of sampling non-probability or convenience sampling (Berete, 2011). According to non-probability sampling technique, researchers select studies' samples based on their convenient accessibility (Parlalis, 2011). The specific sample was 91 publicly listed companies in KSA for the years 2010-2014. Newly established companies were excluded from the sample of this study, because new companies do not have enough time to implement corporate governance mechanisms (Bonna, 2011). In addition, new companies' financial performance can be negatively affected from cash flow problems and poor financial stability as the leaders of these companies concentrate on growing the business (Bonna, 2011). The companies with at least 5 years in existence are assumed to have had sufficient time to implement corporate governance practices and improve financial performance (Bonna, 2011). These companies tend to have more attention from regulators, analysts, and outside parties, as well as the effect of their corporate

governance practices are more directly apparent. The selected companies have become publicly listed companies before 2010. The selection of 2010-2014 time frames was motivated by the (a) availability of trading data and financial statements, (b) corporate governance, and (c) financial data of population over the period of test, such as ROA, ROE, and Tobin's q. Corporate governance and financial data of the selected companies are available on the websites of these companies and Tadawul. The fiscal year of these companies is consistent with the calendar year and there was no change in their fiscal year for those years under examination. Furthermore, these companies were listed on Saudi Stock Exchange throughout all of the study's years.

Ethical Research

Researchers are responsible for demonstrating their trustworthiness, and the reliability and credibility of the methodologies they use in their research (Berete, 2011). For this quantitative study, I developed an ethical approach that was applicable to every stage of this study (Jondle, Ardichvili, & Mitchellach, 2014). Each of Walden's doctoral students must obtain proposal approval by Institutional Review Board (IRB) to gather and analyze the required data for completing their studies. The key role of the IRB members is to ensure the doctoral proposals meet the acceptability criteria of practices standards and professional conducts, institutional regulations, and applicable laws (Berete, 2011).

Data collection sources were from publicly financial reports available from Tadawul and from the 91 KSA firms' websites. The selection of the study data were by

company name along with the Tadawul code, and then saving these data to a password protected file and arranged by company name. No involvement of the human participants in this study. Therefore, no need for participants' protection procedures and documents, such as confidentiality protocols and informed consent forms. For protection purpose, these data were subject to strict security measures. I will store data files for a period of 5 years succeeding the publication of the study, and will thereafter delete the files.

Data Collection

This heading includes three subheadings: instruments, data collection techniques, and data organization techniques. The instruments are tools to collect, determine, and process the information and data gathered for the study (Hoffschwelle, 2011). The data collection technique in this study is the method used to gather data for analysis and interpretation through different secondary sources. Data organization techniques depict the organization of the data for statistical analysis and interpretation.

Instruments

There are no generally accepted corporate governance mechanisms and management scholars have used different corporate governance definitions, instrumentations, metrics, and indexes in corporate governance studies. Consequently, numerous definitions of corporate governance have emerged depending on the researcher's interest and purpose (Mulili & Wong, 2011). As a result, previous researchers have used several instruments, indexes, and metrics to examine corporate governance, financial performance, and market value to measure the variables. Since the

study data were secondary, the data sheets were the instruments of this study for reflecting the values of the independent variables. Therefore, the construction of a series of indices and ratios was appropriate for the purpose of this study.

Various corporate governance indexes have been explored in the review of the professional and academic literature of this study. G-index is becoming the most widely used measure of corporate governance in the academic research because of its consistent scores (Bebchuk et al., 2004; Brown & Caylor, 2004). G-index construction is simple and straightforward. Also, G-index is transparent and easily reproducible (Gompers et al., 2003). Furthermore, G-index objectively reflects the relationships between the corporate governance and both corporate financial performance and market value (Bonna, 2011; Brown & Caylor, 2004). Based on the research questions and literature review, accomplishing the purpose of this study required using different sets of indexes following the equal-weighting approach used in G-Index construction (Bonna, 2011). In this study, the index for each variable was calculated for each year for the time period 2010 to 2014 and added up to estimate the total score of each variable index, and then divided by 5 years to calculate average score index. The measurement of the independent and dependent variables are addressed as follows:

Board size. I developed a board size index values by assigning an equal-weighted approach of 1 point for each board member. A board of seven members is considered small and seven points were assigned; conversely, a large board size of 10 members was assigned 10 points (Dhamadasa et al., 2014; Reddy & Locke, 2010).

Researchers argued that the size of the board of directors should be no greater than 8 or 9 members (Reddy & Locke, 2010; Uwuigbe & Fakile, 2012). Larger board faces coordination and communication problems and hence board effectiveness. Therefore, small board size is expected to be more effective in monitoring corporate management (Bonna, 2011; Vintila & Gherghina 2012).

Board independence. Board independence is measured as the ratio of non-executive and independent directors to the total number of board members (Pandya, 2011). In this study, an independent director was defined as the member who (a) was not an employee in the company and/or its subsidiaries within the last three years, (b) did not have any business relationship with the company, and (c) did not represent a major shareholder of the company. A major shareholder is the shareholder who owns 5% or more of the total shares of the company.

Board committees. Board committees were measured by assigning one point to each independent committee. For example, a company with no independent committees was assigned zero point. Conversely, a company that had four committees, namely executive, auditing, investment, and nomination and remuneration committees was assigned four points. The total score depends on the number of independent committees a company had.

Executive compensation. Executive compensation is total of the financial payments and non-monetary benefits provided to executives in exchange for their work on behalf of an organization (Lin, 2010). In general, executive compensation packages

include a mix of long-term incentives and short-term incentives; long-term incentives, such as restricted shares and stock options while short-term incentives, such as salary, benefits, annual bonus, and perquisites (Lin, 2010). The executive compensation was measured by total financial payments paid and non-monetary benefits issued to five senior executives who received the highest compensation. Saudi stock market's regulators impose using this measure for disclosing the executive compensations in the annual report of firms (KSA's Corporate Governance Regulations, 2006).

Ownership structure. The ownership structure affects the presence of the independence and professional education of the board of directors (Michal, Maria, & Anna, 2011). There are several ways to measure the ownership structure, such as (a) percentage of shares owned by all members of the board of directors by total shares, (b) percentage of shares owned by institutional investors, (c) percentage of shares owned by top five shareholders, and (d) shares owned by the five major families (Reyna, 2012). In this study, based on the availability of the data, the ownership structure of a corporation was determined by the proportion of shares owned by all members of the board of directors by total shares.

Financial performance. Corporate financial performance was measured by ROA and ROE. ROA is ratio or measure used to evaluate the profitability of a company. A higher ratio means a higher profitability of a company. It is calculated as net income by total assets. ROE is the ratio of net income by book equity; the higher the ratio, the

greater the rate of return investors is earning (Coskun & Sayilir, 2012; Dimitropoulos & Tsagkanos, 2012).

Market value. Market value of a firm was measured by Tobin's q, which is the most common measure in empirical corporate governance research. Tobin's q is the market value of equity plus total book value of liabilities divided by total book value of assets. Market value of equity is the number of shares multiplied by the closing price per share (Coskun & Sayilir, 2012).

Data Collection Techniques

The collection of the financial statements and corporate governance factors of each sampled firm was public documents, including annual reports, Tadawul, and company's website for a 5-year period from January 2010 to December 2014 financial years. I used content analysis techniques to analyze the available data (Bonna, 2011). Content analysis is a method for studying the communication content; these techniques include empirical measurement and theoretical definition. The purpose of using content analysis is to create objective and systematic criteria for transforming written text in highly reliable data that can be analyzed for the symbolic content of communication (Bonna, 2011; Simmons, Conlon, Mukhopadhyay, & Yang, 2011). The financial statements included balance sheets and income statements. The collections of corporate governance factors were from the annual reports; these factors, for example, are (a) board size, (b) board independence, (c) board committees, (d) executive compensation, and (e) ownership structure. The collection of financial information, such as (a) net income, (b)

company's capital, (c) common stocks, (d), and total value of assets were from financial statements. Combining the collected data is a necessary step to create indexes, scores, and ratios. The indexes, ratios, and scales help condense the data collected by multiple indicators into a scale score and single number. These data and information serve as excellent tools that enabled me to examine the relationship between corporate governance and both financial performance and market value.

Data Organization Techniques

The data sources for this study included Tadawul filings for the fiscal years 2010 through 2014 and annual reports for the sample firms. Organizing the data is an important step for developing several statistics that describe and summarize the important characteristics of the data sets. The next step was standardizing the organized data and identifying their importance for addressing the research questions by testing the hypotheses. Exporting study data into a spreadsheet was for further review and calculation. The manual review of spreadsheet content was for avoiding any mistakes or duplication of the independent and dependent variables data. Excel spreadsheet is a good tool for calculating (a) ROA, (b) ROE, (c) Tobin's q, (d) mean, (e) median, (f) mode, and (g) standard deviation.

I grouped all the study data by calendar year and labeled a worksheet for each year, and then created a compiled worksheet for the 5 years. The data file included a mix of both raw and transformed data, such as (a) firms' board sizes, (b) board committees, (c) ROA, (d) ROE, and (e) Tobin's q. Organizing the data in a SPSS file was for

statistical analysis. The SPSS file contained both descriptive and inferential statistics regarding the financial performance and market value of the sampled firms. The descriptive data included, for example, mean and standard deviation. Inferential statistics included, for example, ANOVA analysis, *t* test, and multiple regression analysis. I backed up the data on safe thumb drives, which will be stored in fireproof lockboxes for a period of 5 years following the publication of the study. I will delete the data from my computer using a freeware called CyberShredder. Only I had access to these data.

Data Analysis Technique

Prior to conducting multiple regression, I analyzed a simple correlation matrix. This correlation matrix allowed me to accept or reject individual null hypotheses for each of the mechanisms of the independent variable. The correlation matrix helped identify which variables I should include in the actual regression analysis.

After collecting and analyzing the relevant data, and creating the appropriate scores and index for each variable, I analyzed the data statistically. In order to test the resulting hypotheses and answer the research questions, In Section 1, I developed the theoretical framework based on agency and institutional theories to create a relationship or linkage between independent variables of corporate governance and the dependent variables ROA, ROE, and Tobin's q. I addressed the research questions and tested the hypotheses using SPSS (20) multiple regression statistical software program.

Management scholars have used multiple regression models in corporate governance studies to examine the relationship of corporate governance with corporate

financial performance and market value. For example, Moradi et al. (2012) examined the impact of corporate governance mechanisms and financing activities on companies' performance using multiple regression models. Ibrahim et al. (2010) used multiple regression models to examine the relationship between corporate governance and firm performance. Rambo (2013) used multiple regression models to specify the relationship between corporate governance mechanisms and the financial performance of commercial banks. Martani and Saputra (2009) used multiple regression to examine the effect of corporate governance on firm performance measured by economic value added (EVA). Also, Bonna (2011) used multiple regression to investigate the relationship between corporate governance mechanisms and financial performance.

Multiple regression analysis is a statistical tool for analyzing the data within several types of designs for understanding the relationship between/among two or more variables. In this study, the use of multiple regression analysis was to investigate the relationships of corporate governance, financial performance, and market value in KSA's listed companies. The goal was to determine if sound corporate governance implementation was correlated with a better corporate financial performance and market value. The study model is given in the equation: $Y= \alpha +\beta 1X1 + \beta 2X2+ \beta 3X3+ \beta 4X4 +. . . \beta nXn + \varepsilon$ where Y is the dependent variable, X1. . . Xn are the independent variables, α is the intercept and ε is a random error variable. The $\beta 1. . . \beta n$ are the beta coefficients of the independent variables (Bonna, 2011).

I used standard (simultaneous) multiple linear regression. I chose multiple regression models after careful consideration of other quantitative tools choices including correlation analysis, simple linear analysis, and ANOVA analysis of variance (Bonna, 2011). Correlation analysis and simple linear analysis examine the relationships between only two variables (Rodriguez, Araneda, Pedraja, & Rodriguez, 2011). The choice of multiple regression approach was mainly based on the purpose of the study and the nature of the independent and dependent variables. Multiple regression analysis enabled me to examine the strengths of relationships between the five independent variables and the three dependent variables (Rodriguez et al., 2011). The generic equations for the model are

$$ROA = \alpha 0 + \beta 1.SIZE + ß2.IND + ß3.COM + ß4.OWN + ß5.\ EXEC + \varepsilon \quad (1)$$

$$ROA = \alpha 0 + \beta 1.SIZE + \varepsilon \quad (2)$$

$$ROA = \alpha 0 + ß2.IND + \varepsilon \quad (3)$$

$$ROA = \alpha 0 + ß3.COM + \varepsilon \quad (4)$$

$$ROA = \alpha 0 + ß4.OWN + \varepsilon \quad (5)$$

$$ROA = \alpha 0 + ß5.\ EXEC + \varepsilon \quad (6)$$

$$ROE = \alpha 10 + \beta 11.ISIZE + \beta 12.IND + \beta 13.COM + \beta 14.OWN + \beta 15.EXEC + \varepsilon \quad (7)$$

$$ROE = \alpha 10 + \beta 11.ISIZE + \varepsilon \quad (8)$$

$$ROE = \alpha 10 + \beta 12.IND + \varepsilon \quad (9)$$

$$ROE = \alpha 10 + \beta 13.COM + \varepsilon \quad (10)$$

$$ROE = \alpha 10 + \beta 14.OWN + \varepsilon \quad (11)$$

$$ROE = \alpha 10 + \beta 15.EXEC + \varepsilon \quad (12)$$

$$\text{TOBIN'S q} = \alpha 20 + \beta 21.SIZE + \beta 22.IND + \beta 23.COM + \beta 24.OWN + \beta 25.EXEC + \varepsilon \quad (13)$$

$$\text{TOBIN'S q} = \alpha 20 + \beta 21.SIZE + \varepsilon \quad (14)$$

$$\text{TOBIN'S q} = \alpha 20 + \beta 22.IND + \varepsilon \quad (15)$$

$$\text{TOBIN'S q} = \alpha 20 + \beta 23.COM + \varepsilon \quad (16)$$

$$\text{TOBIN'S q} = \alpha 20 + \beta 24.OWN + \varepsilon \quad (17)$$

$$\text{TOBIN'S q} = \alpha 20 + \beta 25.EXEC + \varepsilon \quad (18)$$

Where, ROA is the return on assets, $\alpha 0$ = the intercept of the model, SIZE = board size, IND = board independence, COM = committees, OWN = ownership structure as a proxy for shareholder rights, EXEC = executive compensation, β1. . . β5 are the beta coefficients of the regression model, and ε is a random error. I used the same independent variables to determine the effect of corporate governance mechanisms on approximate return on equity (ROE) and Tobin's q, the other two dependent variables. I used three types of statistical analyses: descriptive and inferential statistical techniques to analyze the data, range, and standard deviation to measure the dispersion of the data from their mean and inferential statistics of sampled firms using multiple regression techniques.

ANOVA is a part of the output of the multiple regression. ANOVA helps identify whether or not to reject the null hypotheses via the *p* value. The results produced by multiple regression analysis are four main values: R^2, *F* statistic, Beta weight, and *t* statistic. The use of *p* values is to identify whether there is an overall statistically significant linear regression relationship between independent variables of corporate governances and the dependent variables of ROA, ROE, and Tobin's q. The test of

statistical hypothesis for the existence of a linear relationship between independent variables and dependent variables is formulated as

$H_0$1: β1 = β2 = β3 = β4 = β5 =β6 = 0

H_a1: Not all the βi are zero

$H_0$2: β1 = β2 = β3 = β4 = β5 = β6 = 0

H_a2: Not all the βi are zero

$H_0$3: β1 = β2 = β3 = β4 = β5 = β6 = 0

H_a3: Not all the βi are zero

If the null hypothesis is not rejected, the conclusion would be that no linear relationship exists between the independent variables and dependent variables (Bonna, 2011). However, if the null hypothesis is rejected the conclusion would be that there is statistically significant linear relationship between the independent variables and dependent variables in the model (Bonna, 2011). The multiple regression technique automatically produces the *t*-statistics. Therefore, there were six *t* tests for each one of the correlation coefficients to identify which independent variables explain the variation in the three dependent variables values (ROA, ROE, and Tobin's *q*). I used multiple correlation coefficient determination (adjusted R^2) to examine the overall percentage of the variation in the dependent variable that was explained by the independent variables. The null hypotheses of this study rejected if *p*-value is less than α, .05.

Reliability and Validity

This heading includes means for assuring the reliability and validity of the study's findings, such as documenting the processes for collecting and analyzing the data. Reliability is concerned about the precision of the study's results, while validity is concerned about the achievement of the study in accurately measuring what the researcher set out to measure, or its accuracy (Bleijenbergh, Korzilius, & Verschuren, 2011). Furthermore, the assurance of reliability increases when the collected data are from peer reviewed and scholarly business sources. The improvement of validity can stem from the clear definition of the study goals and objectives (Hoffschwelle, 2011).

Reliability

Reliability is the consistency of scores and stability, consistency, and repeatability of a measure to represent the scores of an item (Stanley, 2011). Reliability results from a process that produces consistent, dependable, replicable findings and confirmed by previous studies and past events (Hoffschwelle, 2011). Reliability should build upon the measurement quality and accuracy. In the case of using multiple measurements, the values of reliable measures are consistent, stable, repeatable, and accurate (Eeva-Mari & Lili-Anne, 2011). Lack of reliability refers to chance error or random error (Eeva-Mari & Lili-Anne, 2011). However, lack of reliability can also be related to the use of intra rater variation, which may not be random.

The key reliability issue of this study was whether G-Index was reliable to measure the robustness of corporate governance of publicly listed companies in KSA

(Bonna, 2011). Previous studies provided several methods for measuring the strength of corporate governance, however, the most commonly used has been the G-index because of its consistent scores (Bebchuk et al., 2004; Brown & Caylor, 2004). Furthermore, collecting the data and information for supporting the business problem within the study needs to be consistent in the study documentation process and technique (Hoffschwelle, 2011). I evaluated the internal consistency to determine if the collected data were consistent and uniform throughout the data set. I reviewed processes and procedures used for data collection to assure consistency (Schultes, 2011). The review of consistency in data gathering is very important to ensure the gathering occurred in an unbiased way. Also, gauging the consistency is a good tool to ensure the data will be the same if it were to be gathered for a second time (Schultes, 2011). The coefficient of determination (R^2) is an important tool in identifying the degree of linear-correlation of study variables (LaFalce, 2012). Finally, creating metric reliability is important for creating validity, although a reliable assessment is not necessarily valid assessment and a valid assessment is not usually reliable (Stanley, 2011).

Validity

The study validity refers to the extent to which certain measurement satisfies the purpose for which it is selected (Stanley, 2011). This study used secondary data, because I obtained the data from data bases and companies' documents. There are two types of validity: Internal and external. Internal validity confirms that the variations in the dependent variable are due to variations in the independent variable (s), rather than from

other external factors (Eeva-Mari & Lili-Anne, 2011). There was no consideration of the internal validity for this study, because internal validity is only relevant for research that addresses cause-effect of casual relationship (Berete, 2011; Bleijenbergh et al., 2011). I examined external validity. In quantitative research, external validity is a key criterion in determining the generalization of the findings of the research to the entire population or to other samples (Eeva-Mari & Lili-Anne, 2011). For this study, inferential statistical techniques including hypothesis testing and ANOVA were good statistical analyses for making generalization about the study's population as a whole.

In this study, I created a group of metrics following the G-index approach and ensured the metrics covered all needed material for the study. The review of the study data was to test whether the data set reflected data on financial performance, market value, and corporate governance mechanisms to ensure the items measured the hypothetical concepts consistently (Schultes, 2011). I used appropriate sampling procedures and statistical tests, and reliable measurement procedures to avoid a type I and type II errors for having statistical conclusion validity of the study. Improving statistical conclusion validity requires selecting proper sampling procedures, proper statistical tests, and appropriate measurement procedures of the study (George, 2011; Petter, Rai, & Straub, 2012).

Multiple regression models' validity was confirmed by addressing the underlying assumptions for multiple regression analysis. The assumptions of multiple regression models are (a) outliers, (b) linearity, (c) multicollinearity, (d) homoscedasticity, (e)

normality, (f) and independence of residuals (Osborne & Waters, 2002). If the assumptions are not met, the results may not be trustworthy, leading to under- or over-estimation of effect size(s) or significance, or a Type I or Type II error. There are a number of outlier tests, such as Dixon, Grubbs, Tietjen-Moore, Generalized Extreme Studentized Deviate (ESD) tests. There are three key ways to detect non-linearity: (a) using previous research or theory for informing current analyses, (b) examination of residual plots, and (c) routine running of regression analyses that incorporate curvilinear components. There are some analyses used to detect multicollinearity, such as the variance inflation factor (VIF) and collinearity (collin) analysis. Homoscedasticity assumption is verified or checked by visual examination of a plot of the standardized residuals via the regression standardized predicted value and the Levene's test.

Normality assumptions are tested by several ways, such as visual inspection of data plots, kurtosis, and skew (Osborne & Waters, 2002). Researchers use several nonparametric statistical techniques when the assumptions of a parametric statistical technique are in doubt or not met, such as transformations or bootstrapping. Transformations can enhance or improve normality, but make the interpretation of the findings more difficult and complex. Therefore, researchers should use transformations technique in a thoughtful manner. However, bootstrapping eliminates the need for data transformation. For this study, when parametric assumptions such as normality of homoscedasticity were not satisfied, I used bootstrapping. In such situation, it is useful for computing bootstrap confidence intervals that do not depend on those parametric

assumptions. Bootstrapping is a useful method for obtaining a more robust nonparametric estimate of the confidence intervals (Bibbona & Ditlevsen, 2013; Hashemi, Mousavi, & Mojtahedi, 2011; Preuss, Vetter, & Dette, 2013).

Transition and Summary

Section 2 started by restating the purpose statement and the reasons for conducting this study. Section 2 presented (a) a description of my role as the researcher, (b) the methodologies, (c) strategies, (d) techniques, (e) variables' metrics, and (f) reliability and validity of the study. Section 2 presented the reasons for selecting the quantitative method to conduct this study. Furthermore, Section 2 addressed the reasons for choosing the 91 publicly listed companies listed on Tadawul as the sample size from January 2010 to December, 2014 financial years. The source of secondary data was the Tadawul website and the sampled companies' websites. Section 2 included a discussion of the data collection techniques, the reasons for choosing multiple regression modeling, as well as a description of the reliability and validity of the study's instruments. Section 3 presented and interpreted the findings obtained from the data analysis, as well as contained (a) summary, (b) conclusion, (c) recommendations, and (d) the social implications of the study integrated with the conclusion.

Section 3: Application to Professional Practice and Implications for Change

The relationship between corporate governance and both corporate performance and market value of corporations has gained widespread prominence in the stock market economy. Researchers examined this relationship; however, the findings are mixed and not convergent as well as researchers have no concurrence toward these findings. Researchers found positive, neutral, negative, and mixed relationship between corporate governance and both financial performance and market value (e.g., Abels & Martelli, 2011; Chahine & Safieddine, 2011; Coskun & Sayilir, 2012; Ivashkovskaya & Stepanova ,2011; Lama, 2012; Moradi, Aldin, Hevrani, & Iranmahd, 2012). This study was an attempt to enhance the understanding of the relationships between corporate governance and the financial performance and market value of the publicly listed companies in KSA. The theoretical framework of this study is based on agency theory and institutional theory. This section is organized into eight principal headings: (a) introduction, (b) presentation of findings, (c) applications to professional practice, (d) implications for social change, (e) recommendations for action, (f) recommendations for further study, (g) reflections, and (h) conclusions.

Introduction

The purpose of this quantitative correlational study was to investigate the relationship between corporate governance and (a) financial performance and (b) market value in KSA from 2010 to 2014. The key target of this study was to clarify the importance of corporate governance on corporate financial performance and market

value. The aim of this study was to help firms' leaders and legislators to understand which corporate governance mechanisms influence companies' performance and market value, as well as economic growth of society.

In general, the findings of this study revealed a statistically significant relationship between corporate governance mechanisms and both corporate financial performance and market value. However, the findings provided that not all the individual corporate governance mechanisms had significant relationships with both financial performance and market value. Board size had a positive significant relationship with both ROA and ROA. However, board size had a negative significant relationship with Tobin's q.

The findings evidenced that board independence had a negative significant relationship with ROA, whereas had an insignificant relationship with ROE and Tobin's q. Board committees had an insignificant relationship with financial performance and market value. The ownership structure had an insignificant relationship with financial performance and market value. Furthermore, executive compensation had a positive significant relationship with financial performance, whereas had an insignificant relationship with market value.

Presentation of the Findings

The key purpose of this study was to find answers to 12 research questions. These 12 questions are

RQ1: Is there a statistically significant relationship between corporate governance and corporate financial performance for publicly listed companies in KSA?

RQ2: Is there a statistically significant relationship between board size and corporate financial performance for publicly listed companies in KSA?

RQ3: Is there a statistically significant relationship between board independence and corporate financial performance for publicly listed companies in KSA?

RQ4: Is there a statistically significant relationship between board committees and corporate financial performance for publicly listed companies in KSA?

RQ5: Is there a statistically significant relationship between shareholding ownership structure and corporate financial performance for publicly listed companies in KSA?

RQ6: Is there a statistically significant relationship between executive compensation and corporate financial performance for publicly listed companies in KSA?

RQ7: Is there a statistically significant relationship between corporate governance and market value for publicly listed companies in KSA?

RQ8: Is there a statistically significant relationship between board size and market value for publicly listed companies in KSA?

RQ9: Is there a statistically significant relationship between board independence and market value for publicly listed companies in KSA?

RQ10: Is there a statistically significant relationship between board committees and market value for publicly listed companies in KSA?

RQ11: Is there a statistically significant relationship between shareholding ownership structure and market value for publicly listed companies in KSA?

RQ12: Is there a statistically significant relationship between executive compensation and market value for publicly listed companies in KSA?

To answer the research questions, this section includes descriptive statistical analysis, inferential statistical analysis, and detailed description of the study's research findings. I concluded data analyses using SPSS (20). The SPSS file contained both descriptive and inferential statistics regarding the financial performance and market value of the sampled firms. The descriptive data included, for example, the mean, standard deviation, mode, and median. The calculation of the mean is the average of all observations, which is the sum of the study's observations in the data set divided by number of these observations. Standard deviation expresses how much the variation of the study's observations. The definition of the mode is the number in the study observations or data set that is repeated most often. Median is the middle number that divides the data distribution into two halves. Both mean and median are useful in the projection of the future results.

Inferential statistics included, for example, ANOVA analysis, *t* test, and multiple regression analysis. ANOVA helps identify whether or not to reject the null hypotheses

via the *p* value. A *t* test explains the variation in dependent variables and which independent variable has explanatory power.

Descriptive Statistical Analysis of Sampled Firms

The 91 sampled firms belonged to 13 sectors: (1) cement (9.89%), (2) building material and construction (13.19%), (3) tourism and hotels (2.20%), (4) media (2.20%), (5) transportation (3.30%), (6) real estate (4.40%), (7) multi investment (7.69%), (8) information technology (3.30%), (9) power and utilities (1.10%), (10) retail (8.79%), (11) petrochemical (16.48%), (12) agriculture (13.18%), and (13) industrial investment (14.28%) sectors. Corporate governance mechanisms, financial performance data, and market value data from January 2010 to December 2014 were collected from the websites of the sampled firms and Tadawul. The sampled firms are listed in appendix A. The heading of the descriptive statistical analysis presented (a) mean, (b) median, (c) mode, (d) range, and (e) standard deviation of (a) ROA, (b) ROE, (c) Tobin's q, and (d) the study's explanatory variables of sampled companies.

Table 2 summarizes the descriptive statistics of the 13 sectors of sampled firms and their financial performance and market value. Financial performance was measured by ROA and ROE, while market value was measured by Tobin's q. The sectors that experienced above average financial performance in the sampled firms had a higher ROA and ROE. Likewise, the sectors that seemed to experience above average market value in the sampled firms had a Tobin's q of at least 1.00. On the contrary, the sectors seemed to experience lower average financial performance in KSA's market had a lower mean ROA

and ROE. Also, the sectors experienced lower average market value had a lower mean Tobin's q. The higher ROA and ROE the better the financial performance the sector had. Also, the sector with a Tobin's q > 1.00 is an indication for sector growth.

Table 2

Descriptive Statistical Analysis of Sampled Sectors

Sector	Mean ROA (%)	Financial performance	Mean ROE (%)	Financial performance	Mean Tobin's q	Market value
Cement	16.35	Above average	20.08	Above average	2.41	Above average
Building and construction.	5.05	Lower average	7.61	Above average	1.47	Above average
Tourism and hotels	6.30	Average	6.95	Average	3.20	Above average
Publication and media	2.63	Lower average	4.86	Lower average	1.14	Above average
Transportation	.90	Lower average	2.32	Lower average	2.02	Above average
Real estate development.	7.19	Above average	8.53	Above average	1.01	Average
Multi investment.	-1.37	Lower average	-29.75	Lower average	1.46	Above average
Information tech.	4.63	Lower average	2.53	Lower average	1.43	Above average
Power and utilities.	8.49	Above average	11.70	Above average	1.51	Above average
Retail	10.56	Above average	19.26	Above average	2.54	Above average
Petrochemical	5.73	Lower average	8.99	Above average	1.44	Above average
Agriculture	2.21	Lower average	3.96	Lower average	2.18	Above average
Industrial investment.	7.18	Above average	11.60	Above average	1.69	Above average

The mean ROA of the all sectors was 6.16%. The cement sector had the highest ROA of 16.35% followed by retail sector of 10.56, power and utilities sector of 8.49%, real estate development of 7.19%, industrial investment of 7.18%, and tourism and hotels of 6.30%. Petrochemical, building material and construction, information technology, publication and media, agriculture, transportation, and multi investment sectors had mean ROA lower than the average of sampled firms. Among all sectors, multi investment sector had the lowest mean ROA of negative 1.37%.

The mean ROE for all the sectors was 6.98%. Cement, retail, and power and utilities sectors also had the highest ROE of 20.08%, 19.26%, and 11.70% respectively. Industrial investment sector with mean ROE of 11.60%, petrochemical sector with mean

ROE of 8.99%, real estate development sector with mean ROE of 8.53%, and building material and construction sector with mean ROE of 7.61% had a greater than 6.98% mean ROE. Tourism and hotels sector had almost the same mean ROE of all sampled firms. Publication and media, agriculture, information technology, transportation, and multi investment sectors had a lower than 6.98% mean ROE. The higher ROA and ROE of above average can be resulted of high net income, efficient use of debts, and efficient use of company's current and noncurrent assets (Bonna, 2011).

The mean Tobin's q for sampled firms was 1.80. Tourism and hotels had the highest Tobin's q of 3.20. Retail sector with mean Tobin's q of 2.54, cement sector with mean Tobin's q of 2.41, agriculture sector with mean Tobin's q of 2.18, and transportation sector with mean Tobin's q of 2.02 had a greater than 1.80 mean Tobin's q. Also, all other sectors, including industrial investment, power and utilities, building material and construction, multi investment, petrochemicals, information technology, and publication and media sectors, had a greater than 1.00 mean Tobin's q. Sector's Tobin's q of 1.00 could explain that the market value of equity of that sector was higher than the carrying value of its current and noncurrent assets, which is an indication of sector growth and over average performance in terms of market value. It is noted that firms with highest mean Tobin's q do not necessarily have highest mean ROA and ROE. Table 3 summarizes the descriptive statistics of the sampled companies using the mean, standard deviation, mode, and median.

Table 3

Descriptive Statistics of Financial Performance, Market Value, and Corporate Governance (n = 91)

	M	*SD*	Mode	Median
Board size	8	1.48	9	8
Board independence	78%	18%	100%	82%
Board committees	3	0.64	3	3
Executive compensation	7.10 million	8.39 million	1.15 million	4.91 million
Ownership structure	17%	21%	9%	7%
ROA	6.16%	9.97%	1.19%	4.97%
ROE	6.98%	49.02%	1.19%	7.98%
Tobin's q	1.80	1.21	.87	1.37
Market value	10.11 billion	33.20 million	2.67 million	1.72 million

The lowest ROA of sampled firms was negative 78%, whereas the highest ROA was 44%, the range was 122%%. The mean ROA of these firms was 6.16%, the standard deviation was 9.97%, the mode was 1.19%, and the median was 4.97%. The lowest ROE for sampled firms was negative 984%, whereas the highest ROE was 57%, the range was 1041%. The mean ROE of the sampled firms was 6.98%, the standard deviation was 49.02%, the mode was 1.19%, and the median was 7.98%.

The best symmetrical distribution is achieved when the mean, mode, median are equal. When the mean and the median are close together in distribution center, the distribution will not be perfect, but roughly symmetrical. The mean, mode, and median are different when the distribution is skewed. In a negative skewed distribution, the order of the mean, median, and mode of central tendency from the smallest value to highest value is the mean, median, and mode. Conversely, in a positive skewed distribution, the order from the smallest to highest is the mode, median, and mean. The higher ROA and

ROE is an indication of a firm's ability to generate internal funds for financing its assets and operations.

The lowest Tobin's q for sampled firms was .53, while the highest Tobin's q was 9.44, the range was 8.91. The mean Tobin's q of the sampled firms was 1.80, the standard deviation was 1.21, the mode was .87, and the median was 1.37. 13% of the total observations had Tobin's q of lower than 1.00. Three observations had Tobin's q of 1.00. Thus, 86% of the total observations had Tobin's q of higher than 1.00. The higher percentage of the higher Tobin's q is a sign of firms' growth and over average performance in terms of market value. The highest market value in the study sample was SR 334.50 billion, whereas the lowest market value was SR .19 billion, the range was SR 334.31 billion. The average market value of sampled firms was SR 10.11 billion, the standard deviation was SR 33.20 billion, the mode was SR 2.67 billion, and the median was SR 1.72 billion. Figure 1 illustrates that the market value of equity appeared to be positively skewed with most firms in the study's sample with higher market values.

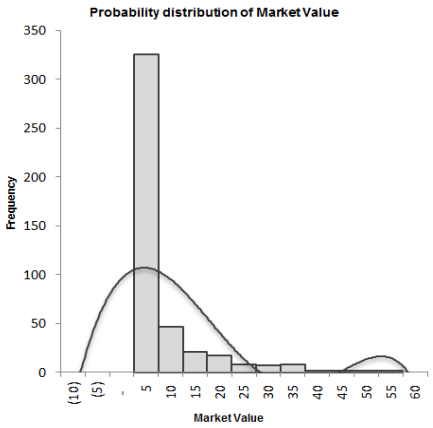

Figure 1. The probability distribution of the market value of sampled companies.

The smallest board size of sampled firms was three members, while the greatest board size was 12 members, the range was 9. The mean board size was 8, the standard deviation was 1.48, the mode was 9, and the median was 8. Figure 2 illustrates that the sampled board size had a normal symmetrical distribution.

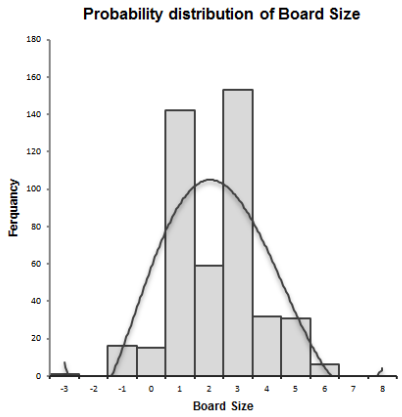

Figure 2. The probability distribution of the board size of sampled companies.

Board independence is very important corporate governance mechanism because of its ability to help mitigate financial scandals and corporate failures. The lowest board independence of sampled firms was 20%, while the highest board independence was 100%, the range was 80%. The mean board independence was 78%, the mode was 1 or 100%, the median was 82%, and the standard deviation was 18%.

The smallest board committees of sampled firms were one committee, while the greatest board committees were five committees, the range four committees. The board committees had a perfect symmetrical distribution with mean of 3, mode of 3, median of 3, and standard deviation of .64. The lowest executive compensation of sampled firms was SR .32 million, while the highest executive compensation was SR 72.10 million, the

range SR 71.78. Executive compensation seemed negatively skewed with a mode value of SR 1.15 million, a median of SR 4.91 million, and a mean of SR 7.10 million with a standard deviation of SR 8.39 million.

Descriptive statistics provided evidence to conclude that there were relationships between the payment of executive compensation and both ROA and ROE. Additionally, the ownership structure is very important corporate governance mechanism because the ownership structure shapes governance system of any country and lays down the discipline of managers, company's objectives, and shareholder wealth. The lowest ownership structure of sampled firms was 00%, while the highest ownership structure was 96% and the range was SR 96%. Descriptive statistics showed a mean ownership structure of 17%, a mode of 9%, a median of 7%, and a standard deviation of 21%.

Table 4 summarizes proportion of companies that implemented specific corporate governance mechanisms using frequency distribution. The table illustrates the frequency distribution of the companies that were above, equal, and lower than the mean of each corporate governance mechanism. These descriptive statistics are a sign of companies' compliance to corporate governance rules and regulations.

Table 4

Frequency Distribution Table Shows Corporate Governance Mechanisms of Study Sample (n = 91)

Proportion (%) of firms with corresponding corporate governance mechanisms	Corporate governance mechanisms				
	Board size mean (8)	Board independence mean (0.78)	Board committee mean (3)	Executive comp. mean (7.1 million)	Ownership structure mean (0.17)
Above the mean	49%	56%	22%	32%	40%
Equal the mean	8%	0%	46%	0%	0%
Below the mean	43%	44%	32%	68%	60%

For board size, about 49% (n = 91) of the 91 sampled companies had a board size more than the mean (eight members). About 8% of the companies had a board size equal the mean, whereas 43% had a board size less than the mean. Therefore, most of the companies had board sizes more than eight members during the study period. Similarly, 56% (51 companies) of the companies had non-executive and independent board members more than the mean (78%), whereas 44% (40 companies) of the sampled companies had non-executive and independent board members less than the mean.

I concluded from the descriptive statistics that 22 % of the sampled companies had board committees more than the mean (3) and 46 % had committees equal the mean, whereas 32% of the sample had committees less than the mean. Therefore, most of companies believed that three committees are sufficient for helping board members take right and efficient decisions. Furthermore, 68% of the companies paid executive compensation less than the mean (7.1 million) believed that the less executive compensation, the more financial performance a company would achieve. The last

feature emerged from the descriptive statistics is that 60% of the companies had ownership structure less than the mean, believed that the more ownership stakes in hands of board members, the less financial performance and market value the company had.

Inferential Statistical Analysis of the Study Sampled Firms

This heading presents the relationships between corporate governance mechanisms and dependent variables of the study. The heading includes the analysis of the linear relationship between corporate governance mechanisms and dependent variables, and then presents multiple regression findings and ANOVA tables. The first subheading presents the relationship between corporate governance in KSA and ROA. The second and third subheadings present the relationship between corporate governance and both ROE and Tobin's q respectively.

Before examining the relationships between corporate governance mechanisms and dependent variables, I checked the multicollinearity among the independent variables using multiple regression. Multicollinearity exists when two or more predictors in a multiple regression model are highly related or correlated, as one independent variable can be predicted from other independent variables. Multicollinearity is not a problem in the multiple regression model if the tolerance static between two explanatory variables falls above .40. Low tolerance means high multicollinearity and high tolerance means low multicollinearity.

Table 5 presents the correlation of all the study explanatory variables for multiple regression models for testing the multicollinearity among these variables. The table

illustrates that multicollinearity does not represent a problem in the study. As per the correlation matrix the highest correlation between two explanatory variables is negative 65.9% between board committees and ownership structure. The second highest pairwise correlation between executive compensation and board size is 34.4%. Similarly, the correlation between the board committee and board size is 13.7% and that of ownership structure and board size is 13.1%. The pairwise correlation among the other explanatory variables ranges from negative 1.4% to 11.7%. Therefore, including all the independent variables in the multiple regression models would not lead to multicollinearity problem.

Table 5

Correlation Matrix of Corporate Governance Mechanisms

	SIZE	IND	COM	OWN	EXEC
SIZE	1.000				
IND	-.105	1.000			
COM	.137	.085	1.000		
OWN	.131	-.659	.051	1.000	.
EXEC	.344	-.014	.117	.052	1.000

I also checked the multicollinearity problem among the explanatory variables by *VIF* values. If the *VIF* values are approximately 1, the correlation or multicollinearity among predictors may not cause a serious problem and the multiple regression model can be used for the prediction between the independent and dependent variables (Bonna, 2011). *VIF* values ranging from 5 to 10 indicate high correlation between variables that may be a serious problem. Table 6 contains *VIF* values for multiple regression models. The *VIF* for explanatory variables are 1.166 for board size, 1.821 for board independence, 1.053 for board committees, 1.815 for ownership structure, and finally

1.142 for executive compensation. Based on these values, I did not find multicollinearity problem in the multiple regression models.

Table 6

VIF Values for Multiple Regression Models

	SIZE	IND	COM	OWN	EXEC
VIF	1.166	1.821	1.053	1.815	1.142

Corporate governance and ROA. The test of statistical hypothesis for the existence of a linear relationship between independent variables and dependent variables is formulated as

$H_0 1$: $\beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = 0$

$H_a 1$: Not all the βi are zero

I tested the relationship between ROA and corporate governance mechanisms using multiple regression analysis. The *R* value explains the variation in ROA and the betas explain which independent variables have explanatory power. The multiple regression analysis was conducted using SPSS (20). The multiple regression results, the ANOVA table, and the model summary for the multiple regression findings are included in Table 7, Table 8, and Table 9.

Table 7

Regression Results for Corporate Governance (n = 91), y = ROA

	Intercept	SIZE	IND	COM	OWN	EXEC
S(b)		.130	-.133	.073	.074	.130
p-value	.663	.007	.028	.111	.222	.007

Table 8

ANOVA Table for Corporate Governance (n = 91), y = ROA

Model		*df*	*F*	*F* critical value	*p*
1	Regression	5	9.825	2.2341	< .001
	Residual	449			
	Total	454			

Table 9

Model Summary for Corporate Governance (n = 91), y = ROA

Model	*R*	*R* Square	Adjusted *R* Square	Std. Error of the Estimate
1	.314[a]	.099	.089	.066793

Multiple regression analysis was conducted to determine if the corporate governance mechanisms as independent variables predicted the ROA as dependent variable. I used the standardized coefficients because the study's variables were measured in different units. Table 7 illustrates the standardized coefficients and *p* values. The regression equation is

*ROA =.130*SIZE - .133*IND + .073*COM + .074*OWN + .130*EXEC*

Table 8 illustrates that *p* value of less than .001 is significant. The multiple coefficient of determination R^2 is .099 and adjusted R^2 is .089. The adjusted R^2 of .089 explains that approximately 9% of the variability in ROA is caused by the independent variables, corporate governance mechanisms. The decision is to reject the null hypothesis that all the coefficients are zero and accept the alternative hypothesis. Therefore, there is an evidence to confirm a relationship between ROA and at least one of the five corporate governance mechanisms.

A hypothesis test for the individual corporate governance variables of the regression formula would identify which of the coefficients are not zero. The beats explain which independent variables have explanatory power. The relationship between the board size of sampled firms and ROA is inconclusive. Board size hypothesis is formulated as

H_0: $\beta_1 = 0$

H_1: $\beta_1 \neq 0$

Table 7 illustrates that the *p* value for board size (*SIZE*) is .007, which is below the .05 significant level. The beta coefficient of board size is .130. Thus, a one-member increase in the board size leads to a 13% increase in the ROA. Thus, I reject the null hypothesis in favor of H_1. Therefore, board size variable is statistically significant and can be used to predict and explain ROA.

It is expected that board independence variable predicts ROA and increases corporate financial performance. Board independence is hypothesized as

H_0: $\beta_2 = 0$

H_1: $\beta_2 > 0$

Table 7 illustrates that the *p* value for board independence (*IND*) is .028, which is below the .05 significance level. The standardized beta of board independence is negative .133; so a one-unit increase in board independence leads to a 13.3% decrease in the ROA. Thus, I reject the null hypothesis and accept the alternative hypothesis that β_2

is not zero. Therefore, board independence variable is statistically significant and explain ROA.

The impact of number of board committees on ROA is inconclusive. For board committees the hypothesis is

H_0: $\beta_3 = 0$

H_1: $\beta_3 \neq 0$

Table 7 illustrates that the *p* value for board committees (*COM*) is .111, which is above the .05 significance level. The beta coefficient of board committees is low of .073. Thus, I cannot reject the null hypothesis that β_3 is zero. Therefore, the number of board committees is statistically insignificant and cannot be used to predict and explain ROA.

It is expected that the higher the ownership stakes owned by the board member, the better the ROA of a firm. Ownership structure is hypothesized as

H_0: $\beta_4 = 0$

H_1: $\beta_4 > 0$

Table 7 illustrates that the *p* value for ownership structure (*OWN)* is .222, which is greater than the .05 significance level. The beta coefficient of the ownership structure is only .074. Thus, I cannot reject the null hypothesis that β_4 is zero. Therefore, the ownership structure is statistically insignificant and cannot be used to predict and explain ROA.

It is expected that the greater the executive compensation, the lower the ROA of a firm. Executive compensation is hypothesized as

H_0: $\beta_5 = 0$

H_1: $\beta_5 < 0$

The multiple regression results in Table 7 show that the *p* value for executive compensation (*EXEC*) is .007, which is less than the .05 alpha level. The beta coefficient of the executive compensation is .130. Thus, a one-unit increase in board independence leads to a 13% increase in ROA. Thus, I reject the null hypothesis that β_5 is zero. Therefore, executive compensation variable is statistically significant and can be used to explain and predict ROA.

The multiple regression results showed that only board size, board independence, and executive compensation are the significant variables that explain and predict the most variation in ROA. The multiple regression results in Table 7 illustrate that board size and executive compensation had positive relationships with ROA, whereas board independence had a negative relationship with ROA. Board committees and ownership structure had insignificant relationships with ROA. Board independence was expected to have positive relationship and increase ROA, but the finding did not support that expectation. Also, it was expected that the larger ownership of stocks in the hands of board members increases ROA and the higher the executive compensation the lower the ROA of the firm, but the regression results did not prove that expectations.

The lack of the relationship between board committees and ROA indicates that shareholders are not interested in many board committees likely because of lack of suitable coordination and overlapping of responsibilities and duties that can result in

inefficiencies. Similarly, the lack of relationship between ownership structure and ROA indicates that shareholders do not like excessive ownership stakes in the hands of board members, which reduces corporate financial performance.

Figure 3 illustrates that the residuals are normally distributed as the residuals approximately follow a straight line, which is an indication on the quality of the regression model or the normal distribution is a good model for the data set of the study.

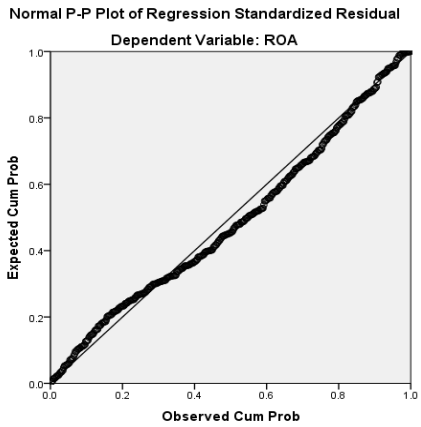

Figure 3. The normal probability plot of the residuals for ROA.

Regarding the relationship between all independent variables of corporate governance mechanisms and ROA, the adjusted R^2 of .089 was extremely low because the adjusted R^2 was below 20%. The insignificant variables were board committees and ownership structure. I removed the two insignificant variables from the regression model and re-conducted the multiple regression analysis to determine if the amount of variance in the ROA explained by significant independent variables increased.

Table 11 illustrates that the revised adjusted R^2 with board size, board independence, and executive compensation in the model was .083. Although excluding

the insignificant variables from the model, the adjusted R^2 was decreased at .083. The adjusted R^2 slightly decreased by .006 from .089 to .083. The revised adjusted R^2 of .083 explains that about 8.3% of the variability in ROA is caused by the independent variables, board size, board independence, and executive compensation. Table 10 illustrates the standardized beta and *p* values of the highest predictive variables. The multiple regression model with the highest predictive power with ROA as a dependent variable is

*ROA = .143*SIZE - .174*IND + .137*EXEC*

Table 10

Regression Results for Significant Variables (n = 91), y = ROA

	Intercept	SIZE	IND	EXEC
S(b)		.143	-.174	.137
p-value	.050	.003	< .001	.004

Table 11

Model Summary for Significant Variables (n = 91), y = ROA

Model	*R*	*R* Square	Adjusted *R* Square	Std. Error of the Estimate
1	.299[a]	.089	.083	.066989

Corporate governance and ROE. The test of statistical hypothesis for the existence of a linear relationship between independent variables and dependent variables is formulated as

$H_0 1$: $\beta_{11} = \beta_{12} = \beta_{13} = \beta_{14} = \beta_{15} = 0$

$H_a 1$: Not all the β_i are zero

The relationship between ROE and corporate governance mechanisms was tested using multiple regression analysis. I conducted the multiple regression analysis using SPSS. The multiple regression results, ANOVA table, and the model summary for the multiple regression analysis are presented in Table 12, Table 13, and Table 14 respectively.

Table 12

Regression Results for Corporate Governance (n = 91), y = ROE

	Intercept	SIZE	IND	COM	OWN	EXEC
S(b)		.121	-.095	.032	.099	.204
p-value	.559	.012	.114	.482	.100	< .001

Table 13

ANOVA Table for Corporate Governance (n = 91), y = ROE

Model		*df*	*F*	*F* critical value	*p*
1	Regression	5	11.753	2.2341	< .001
	Residual	449			
	Total	454			

Table 14

Model Summary for Corporate Governance (n = 91), y = ROE

Model	*R*	*R* Square	Adjusted *R* Square	Std. Error of the Estimate
1	. .340[a]	.116	.106	.099795

Multiple regression analysis was conducted to identify if the corporate governance mechanisms as explanatory variables explained and predicted the ROE as a measure of financial performance. Table 12 illustrates the standardized betas and *p* values. The regression equation is

*ROE =.121*SIZE - .O95*IND +.032*COM + .099*OWN + .204*EXEC*

Table 13 illustrates that the regression was significant ($p < .001$). The multiple coefficient of determination R^2 is .116 and adjusted R^2 is .106. The adjusted R^2 of .106 explains that only about 10.6% of the variability in ROE is caused by corporate governance mechanisms as independent variables. The decision is to reject the null hypothesis in favor of the alternative hypothesis that all the slope coefficients are not zero. Therefore, there is an evidence to confirm a relationship between ROE and at least one of the five corporate governance mechanisms.

A hypothesis test for the individual corporate governance variables of the regression formula would identify which of the slope coefficients are not zero. The betas explain which independent variables have explanatory power. The relationship between the board size of sampled firms and ROE is inconclusive. Board size is hypothesized as

H_0: $\beta_{11} = 0$

H_1: $\beta_{11} \neq 0$

Table 12 illustrates that the *p* value for board size (*SIZE*) is .012, which is below the .05 significance level. The beta coefficient of board size is .121. That means that a one-member increase in the board size leads to a 12.1% increase in the ROA. Thus, I reject the null hypothesis and accept alternative hypothesis. Therefore, board size variable is statistically significant and predict and explain ROE.

It is expected that board independence variable predicts ROE and increases corporate financial performance. Board independence is hypothesized as

H_0: $\beta_{12} = 0$

H_1: $\beta_{12} > 0$

Table 12 illustrates that the *p* value for board independence (*IND*) is .114, which is above the .05 significance level. The standardized beta of board independence is negative .095. Thus, I cannot reject the null hypothesis that β_{12} is zero. Therefore, board independence variable is statistically insignificant and cannot be used to predict and explain the ROE.

The impact of number of board committees on ROE is inconclusive or not clearly known. For board committees, the hypothesis is

H_0: $\beta_{13} = 0$

H_1: $\beta_{13} \neq 0$

The beta coefficient of board committees is low of .032. The *p* value for board committees (*COM*) is .482, which is greater than the .05 significant level. Thus, I cannot reject the null hypothesis that β_{13} is zero. Therefore, the number of board committees is statistically insignificant and cannot be used to predict and explain ROE.

I expected that the higher the ownership stakes owned by board members, the better the ROE of a firm. Ownership structure is hypothesized as

H_0: $\beta_{14} = 0$

H_1: $\beta_{14} > 0$

Table 12 illustrates that the beta coefficient of the ownership structure is only .099. The *p* value for ownership structure (*OWN)* is .100, which is greater than the .05

significance level. Thus, I cannot reject the null hypothesis that β_{14} is zero. Therefore, the ownership structure is statistically insignificant and cannot be used to predict and explain ROE.

It is expected that the greater the executive compensation, the lower the ROE of a company. Executive compensation is hypothesized as

H_0: $\beta_{15} = 0$

H_1: $\beta_{15} < 0$

The multiple regression results in Table 12 show that the *p* value for executive compensation (*EXEC*) is < .01, which is less than the .05. The beta coefficient of the executive compensation is .204. Thus, a one-unit increase in executive compensation yields a 20.4% increase in the ROA. Thus, I reject the null hypothesis and accept the alternative hypothesis that β_{15} is not zero. Therefore, executive compensation variable is statistically significant and can be used to explain and predict ROE.

The multiple regression results showed that only board size and executive compensation are the significant variables that explain and predict the most variation in ROE. Table 12 illustrates that board size and executive compensation had positive significant relationships with ROE as the higher the board size and executive compensation, the higher ROE a firm had. Board independence, board committees, and ownership structure had insignificant relationships with ROE. Board independence was expected to have a positive relationship and increase ROE, but regression results did not support that expectation. Similarly, there was expectation that a larger ownership stakes

in the hands of board members enhance ROE, but the regression results did not prove that expectation. The results also did not support the expectation that the larger the executive compensation, the lower the ROE of a company; the results revealed a significant and positive relationship between executive compensation and ROE.

Similar to the effect of corporate governance mechanisms on ROA, the insignificant relationship between board committees and ROE indicates that shareholders are not interested in several board committees likely because of improper coordination among board members and overlapping of duties that can result in inefficient decisions. Also, the insignificant relationship between ownership structure and ROE indicates that shareholders do not like high ownership stakes in the hands of board members, which negatively affects corporate financial performance.

Figure 4 illustrates that the residuals are normally distributed as the residuals looks fairly straight, which is an indication on the quality of the regression model.

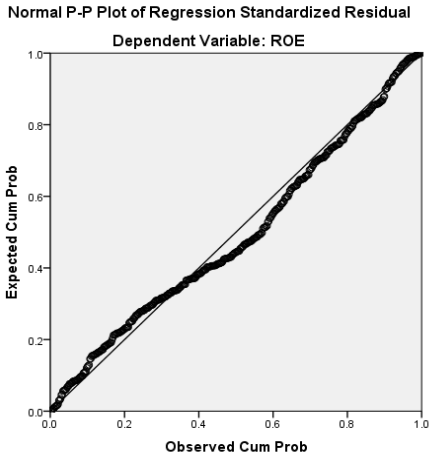

Figure 4. The normal probability plot of the residuals for ROE.

Concerning the relationship between all independent variables of corporate governance mechanisms and ROE, the adjusted R^2 of .106 was extremely low because the adjusted R^2 was below 20%. The insignificant variables were board independence, board committees, and ownership structure. I removed the three insignificant variables from the regression model and re-conducted the multiple regression analysis to determine if the amount of variance in the ROE explained by significant independent variables increased.

Table 16 illustrates that the revised adjusted R^2 with board size and executive compensation in the model was .081. Despite excluding the insignificant variables from the mode, the adjusted R^2 was decreased at 0.081. The adjusted R^2 decreased by .025 from .106 to .081. The revised adjusted R^2 of .081 explains that about 8.1% of the variability in ROE is caused by the independent variables, board size and executive compensation. Table 15 illustrates the standardized betas and *p* values of the highest predictive variables. The multiple regression model with the highest predictive power with ROE as a dependent variable is

*ROE =.148*SIZE + .205*EXEC*ROE

Table 15

Regression Results for Significant Variables (n = 91), y = ROE

	Intercept	SIZE	EXEC
S(b)		.148	.205
p-value	.682	.002	< .001

Table 16

Model Summary for Significant Variables (n=91), y=ROE

Model	*R*	*R* Square	Adjusted *R* Square	Std. Error of the Estimate
1	. .291[a]	.085	.081	.101199

Corporate governance and Tobin's q. The test of statistical hypothesis for the existence of a linear relationship between independent variables and dependent variables is formulated as

$H_0$1: $\beta_{21} = \beta_{22} = \beta_{23} = \beta_{24} = \beta_{25} = 0$

H_a1: Not all the β_i are zero

I used multiple regression analysis to examine the relationship between the market value measured by Tobin's q and corporate governance mechanisms. I conducted the multiple linear regression analysis using SPSS. The multiple regression results, ANOVA table, and the model summary for the multiple regression analysis are presented in Table 17, Table 18, and Table 19 respectively.

Table 17

Regression Results for Corporate Governance (n = 91), y = Tobin's q

	Intercept	SIZE	IND	COM	OWN	EXEC
S(b)		-.192	.002	-.057	.044	.035
p-value	< .001	. < .001	.975	.232	.481	.485

Table 18

ANOVA Table for Corporate Governance (n = 91), y = Tobin's q

Model		*df*	*F*	*F* critical value	*p*
1	Regression	5	3.628	2.2341	.003
	Residual	449			
	Total	454			

Table 19

Model Summary for Corporate Governance (n = 91), y = Tobin's q

Model	*R*	*R* Square	Adjusted *R* Square	Std. Error of the Estimate
1	.197[a]	.039	.028	.887193

Multiple regression analysis was conducted to determine if the corporate governance mechanisms as independent variables explained and predicted the Tobin's q. Table 17 illustrates the standardized betas and *p* values. The regression is

*Tobin's q = - .192*SIZE + .002*IND -. 057*COM + .044*OWN + .035*EXEC*

Table 18 illustrates that the *p* value of .003 is less than the .05 alpha level. The multiple coefficient of determination R^2 is .039 and adjusted R^2 is .028. The adjusted R^2 of .028 indicated a weak relationship and explained that only about 2.8% of the variability in Tobin's q is explained by corporate governance mechanisms as independent variables. However, the decision is to reject the null hypothesis and accept the alternative hypothesis that all the slope coefficients are not zero. Therefore, there is an evidence to support a linear relationship between market value and at least one of the corporate governance mechanisms.

A hypothesis test for the individual corporate governance variables of the regression formula would identify which of the slope coefficients are not zero. The beats explain which independent variables have explanatory power. The relationship between the board size and market value is inconclusive. Board size is hypothesized as

H_0: $\beta_{21} = 0$

H_1: $\beta_{21} \neq 0$

Table 17 illustrates that the regression was significant ($p < .001$). The beta coefficient of board size is negative .192. Thus, a one-member increase in the board size leads to a 19.2% decrease in the ROA. Thus, I reject the null hypothesis in favor of the alternative hypothesis that B_{21} is not zero. Therefore, board size variable is statistically significant and predict and explain Tobin's q.

It is expected that board independence variable predicts Tobin's q and increases market value. Board independence is hypothesized as

H_0: $\beta_{22} = 0$

H_1: $\beta_{22} > 0$

Table 17 illustrates that the standardized beta of board independence is only .002. The *p* value for board independence (*IND*) is .975, which is greater than the .05 significance level. Thus, I cannot reject the null hypothesis, H_0, that beta coefficient is 0. Therefore, board independence variable is statistically insignificant and cannot be used to predict and explain Tobin's q.

The impact of number of board committees on Tobin's q is inconclusive or not clearly known. For board committees, the hypothesis is

H_0: $\beta_{23} = 0$

H_1: $\beta_{23} \neq 0$

Table 17 illustrates that the beta coefficient of board committees is negative .057. The *p* value for board committees (*COM*) is .232, which is above the .05 significant level. Thus, I cannot reject the null hypothesis that β_{23} is 0. Therefore, the number of board committees is statistically insignificant and cannot be used to predict and explain Tobin's q.

It is expected that the larger the ownership stakes owned by board members, the better the market value of a firm. Ownership structure is hypothesized as

H_0: $\beta_{24} = 0$

H_1: $\beta_{24} > 0$

Multiple regression results show that the beta coefficient of the ownership structure is only .044. The *p* value for ownership structure (*OWN)* is .481, which is greater than the .05 significance level. Thus, I cannot reject the null hypothesis, H_0, that β_{24} is zero. Therefore, the ownership structure is statistically insignificant and cannot be used to predict and explain the market value.

It is expected that the higher the executive compensation, the lower the market value of a firm. Executive compensation is hypothesized as

H_0: $\beta_{25} = 0$

H_1: $\beta_{25} < 0$

The multiple regression results in Table 17 illustrate that the beta coefficient of the executive compensation is only .035. The *p* value for executive compensation (*EXEC*) is .485 which is greater than the .05 significance level. Thus, I cannot reject the null hypothesis, $H_{0,}$ that beta coefficient is zero. Therefore, executive compensation variable is statistically insignificant and cannot be used to explain and predict Tobin's q.

The multiple regression results showed that the board size only had a significant but negative relationship with the market value, whereas board independence, board committees, ownership structure, and executive compensation had statistically insignificant relationships with the market value. Some results were contrary to my expectation because the higher the board independence and the greater the stocks owned by board members, the higher market value and vice versa. The results revealed that executive compensation had an insignificant and negative relationship with the market value. The expectation of relationship between board committees and Tobin's q was not clear, but the findings showed that the number of board committees had a negative insignificant relationship with the market value of a firm.

Figure 5 illustrates that the residuals are normally distributed as the residuals approximately follow a straight line, which is an indication on the quality of the regression model.

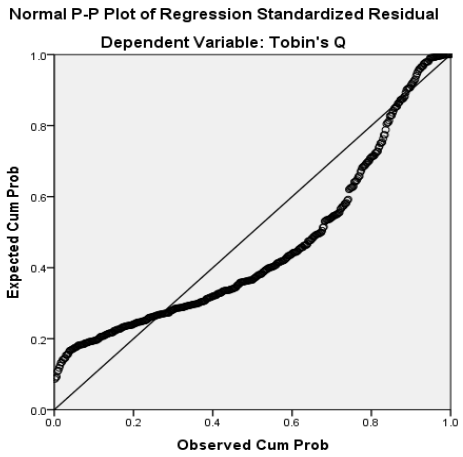

Figure 5. The normal probability plot of the residuals for Tobin's q.

Concerning the relationship between all independent variables of corporate governance mechanisms and Tobin's q, the adjusted R^2 of .028 was extremely low because the adjusted R^2 was below 20%. The insignificant variables were board independence, board committees, ownership structure, and executive compensation. I removed the four insignificant variables from the regression model and re-conducted the multiple regression analysis to identify if the amount of variance in the Tobin's q explained by significant independent variable, board size, increased. Table 21 illustrates that the revised adjusted R^2 with board size in the model was .031. The adjusted R^2 increased by .003 from .028 to .031, which is still low. The revised adjusted R^2 of .031 indicated a weak relationship and explained that only about 3.1% of the variability in Tobin's q is caused by the independent variable, board size. Table 20 illustrates the standardized beta and *p* value of the highest predictive variable. The multiple regression model with the highest predictive power with Tobin's q as a dependent variable is

*Tobin's q = - .182*SIZE*

Table 20

Regression Results for Significant Variables (n = 91), y = Tobin's q

	Intercept	SIZE
S(b)		-.182
p-value	< .001	. < .001

Table 21

Model Summary for Significant Variables (n = 91), y = Tobin's q

Model	*R*	*R* Square	Adjusted *R* Square	Std. Error of the Estimate
1	.182[a]	.033	.031	.885824

Board size had a significant relationship with the ROA, ROE, and Tobin's q in the study's regression models. The indication is that board size is useful in corporate governance studies. Conversely, the board committees and ownership structure had insignificant relationships with the ROA, ROE, and Tobin's q in all regression models. The implication is that the number of board committees and ownership structure are less useful in the studies of corporate governance. Executive compensation had a significant relationship with the financial performance, but had an insignificant relationship with the market value. Board independence had a significant but negative relationship with the ROA, but had an insignificant relationship with the ROE and Tobin's q. The insignificant relationship between the study's corporate governance mechanisms as independent variables and measures of corporate financial performance and market value as showed by the adjusted R^2 indicates that other significant mechanisms were not considered in this study.

Interpretation of Findings

The purpose of this study was to investigate the relationships between corporate governance mechanisms and financial performance and market value. In order to examine these relationships and answer research questions, a theoretical framework was based on agency and institutional theories to create a relationship between corporate governance mechanisms as independent variables and the measures of corporate financial performance and market value. Financial performance was measured by ROA and ROE, while market value was measured by Tobin's q. I conducted multiple regression to find linear relationships between both financial performance and market value as dependent variables and corporate governance mechanisms as predictors. I used correlation matrix of the predictors and *VIF* values to check the correlation or multicollinearity problem among predictors. Multicollinearity was not issue in the multiple regression models. Also, I used the *R* value for explaining the variation in dependent variables and the beats for identifying which independent variables have explanatory power. The findings of the study are presented below.

Corporate governance mechanisms and corporate financial performance. The first six research questions of the study address the relationship between corporate governance mechanisms and corporate financial performance for publicly listed companies in KSA. The literature of corporate governance provided controversial findings regarding the relationship between corporate governance and corporate financial performance (Coskun & Sayilir, 2012). The multiple regression analysis results revealed

a statistically significant relationship between corporate governance mechanisms and financial performance measured by ROA. The *p* values at 5% level of significance and adjusted R^2 in Table 8 and Table 9 confirmed the existence of a positive significant relationship between the study predictors and ROA. However, the findings revealed that only board size, board independence, and executive compensation had significant relationships with ROA. Also, the *p* values and adjusted R^2 in Table 13 and Table 14 supported a statistical evidence of a significant relationship between corporate governance mechanisms and financial performance measured by ROE. However, I found that only board size and executive compensation had significant relationships with ROE.

The regression results in Table 7 provided statistically significant evidence of a positive relationship between board size and financial performance measured by ROA. Similarly, the results in Table 12 provided statistically significant evidence of a relationship between board size of sampled firms and financial performance measured by ROE. The literature has not concurred on the relationship between board size and corporate financial performance, which confirms my expectations that relationships between the board size and both ROA and ROE are inconclusive. Some scholars found an inverse relationship between board size mechanism and corporate financial performance. Other researchers found that a bigger board size may result in higher financial performance because of the different expertizes knowledge and skills of board members. The findings of this study are consistent with some research findings that a larger board size may increase financial performance.

The regression results in Table 7 provided statistically significant evidence of a negative relationship between board independence and corporate financial performance measured by ROA. Conversely, the statistical results in Table 12 proved that board independence had an insignificant relationship with financial performance measured by ROE. There were mixed findings in the previous studies regarding the relationship between board independence and corporate financial performance. Many researchers found board independence increase financial performance, whereas others concluded negative impact or no significant impact of board independence on firm performance (Kumar & Singh, 2012). There are several reasons for these contrasting results, such as performance measures, time frames, and differences in samples (Dimitropoulos & Tsagkanos, 2012). I expected a significant and positive relationship between board independence and corporate financial performance, but the statistical results proved otherwise. I was surprised to find a negative relationship between board independence and financial performance, thereby independent directors reduces firm performance.

The literature has not fully explored the relationship between the mechanism of board committees and corporate financial performance. However, previous researchers found positive effect of number of board committees on disclosure and transparency of accounting information (Bonna, 2011). My expectation was that the impact of number of board committees on ROA and ROE is not clearly known. The regression results in Table 7 and Table 12 provided insignificant relationship between the mechanism board committees and financial performance measured by ROA and ROE. The results are

consistent with the studies on organizational behavior and management principles, as several committees within a firm may lead to improper coordination, duplication of duties, and high costs and inefficiency, thereby affect negatively financial performance (Bonna, 2011).

The empirical research on the relationship between shareholding ownership structure and corporate financial performance found a mixed relationship between ownership structure and firm financial performance. I expected that a higher ownership stake in hands of board members improves firm financial performance. Contrary to my expectation, the regression results in Table 7 and Table 12 provided insignificant relationship between ownership structure and financial performance measured by both ROA and ROE. The findings indicate that investors dislike high ownership stakes in the hands of board members, which reduce company financial performance.

The previous studies about the relationship between executive compensation and corporate financial performance found mixed relationship between executive compensation and financial performance. Some researchers found that the excessive executive compensation could reduce financial performance; however, others found that increasing executive compensation can directly improve firm performance based on supervision mechanisms (Lin, 2010). I expected that the larger the executive compensation, the lower the corporate financial performance measured by ROA and ROE. Therefore, the positive significant relationship between executive compensation and financial performance was not expected. However, the regression results indicated

that the higher executive compensation can be used to attract, retain, and motivate experienced executives, which affect positively corporate financial performance.

Regarding the relationship between corporate governance mechanisms and ROA, the combination of board size, board independence, and executive compensation as supported by the adjusted R^2 of 8.9% revealed a weak relationship, thereby there were other useful mechanisms that were not involved in this study. Furthermore, the results revealed that both board committees and ownership structure had insignificant relationships with ROA. Also, the combination of board size and executive compensation in their relationship with ROE as evidenced by the adjusted R^2 of 10.6% provided a weak relationship; so the findings proved that other useful mechanisms such as leverage were not explored by this study as predictors.

In general, the relationships between all independent variables of corporate governance mechanisms and corporate financial performance measured by ROA and ROE were weak. The regression results of the relationships between the independent variables and financial performance indicated that the adjusted R^2 was below 20%. Therefore, I excluded all insignificant variables from the regression models and re-conducted the multiple regression analysis to determine if the amount of variance in the financial performance explained by significant independent variables increased. The regression results showed that no material change of the adjusted $R^{2.}$

In conclusion, the study's findings revealed significant relationships between corporate governance and financial performance measured ROA and ROE. Board size

and executive compensation had positive significant relationships with ROA, while board independence had a negative significant relationship with ROA. Board committees and ownership structure had positive but insignificant relationships with ROA. Board size and executive compensation had positive significant relationships with ROE, whereas board committees and ownership structure had positive but insignificant relationships with ROE. Board independence had a negative but insignificant relationship with ROE.

Corporate governance mechanisms and market value. The study research questions from 7 up to 12 focus on the relationship between corporate governance mechanisms and market value for publicly listed companies in KSA. The multiple regression results evidenced that there was statistically significant relationship between corporate governance and Tobin's q. The *p* values at 5% significant and adjusted R^2 in Table 18 and Table 19 supported a statistical evidence of a relationship between corporate governance and market value. The results supported statistical evidence of a weak relationship between the predictors and Tobin's q because R^2 is only 2.8%. I only found that board size had a significant but negative relationship with Tobin's q. The implication is that board size mechanism lowers a firm's market value, which is inconsistent with some of the previous studies findings (Bonna, 2011). Most corporate governance scholars in the literature concluded that the corporate governance is an important factor for the firm value. Most of researchers found a positive significant relationship between corporate governance and firm value; whereas a fewer scholars

found a mixed relationship (Berthelot et al., 2010; Coskun & Sayilir, 2012; Gill & Obradovich, 2012; Kumar & Singh, 2012).

The regression results supported a statistical evidence of a significant but negative relationship between board size and market value. The previous studies have not concurred on the relationship between board size and market value, which concurs with my expectation that the relationship between board size and market value is inconclusive. The corporate governance scholars have not concurred on one optimal size for board of directors. Some scholars concluded that there is a negative relationship between board size and market value, as a small board can help improve firm market value (Tai, 2015). When the board members grow too big, boards become more symbolic, as the incremental cost of poor communication may exceed the benefit associated with a large board (Habbash & Bajaher, 2014). Fewer researchers found that a larger board may provide better management supervision and access to a variety of resources (Brédart, 2014). The findings of this study are consistent with some research findings that a larger board size may lower firm market value.

The regression results supported a statistical evidence of an insignificant relationship between board independence and market value. Corporate governance researchers also concluded mixed relationship between board independence and market value. Some researchers found a positive relationship, whereas others concluded an inverse or insignificant relationship between board independence and market value. Some scholars consider board independence is a good mechanism in controlling the

board and can mitigate the concentrated power of the CEO, resulting in better market value. However, others believe that independent directors are more likely to align their interests with the management, leading to lower market value (Ibrahim & Samad, 2011). The study's findings are consistent with some previous studies' results that there is no significant relationship between board independence and market value.

In general, board committees are formed to help corporate directors to perform and discharge their responsibilities and duties effectively, so committees help improve the financial performance and market value of a company. The relationship between board committees and market value of a company has not been fully studied in the literature; however, Bonna (2011) concluded a negative relationship between board committees and market value. The implication is that too many board committees formed by a firm may lead to improper coordination among different committees and inefficiency, resulting in less market value. My expectation was that the relationship between board committees and market value is not known clearly. The regression results provided a statistical evidence of a negative insignificant relationship between board committees and market value. However, the findings of this study to some extent are consistent with the findings of Bonna (2011) that there is a negative relationship between the mechanism of board committees and market value.

The proponents of agency theory recommend a higher overlap between stock ownership and business management to mitigate conflict of interest, leading to better firm market value (Mangunyi, 2011). Therefore, my expectation was that a higher ownership

stake in hands of board members increases firm market value. The regression results provided a statistical evidence of an insignificant relationship between ownership structure and market value. The previous studies produced mixed findings regarding the relationship between the ownership stakes owned by board members and firm market value (Leung & Horwitz, 2010). The findings of this study are inconsistent with agency theory regarding the ownership concentration by board members, but the results are consistent with the findings of some previous researches that the relationship between ownership structure and market value is insignificant.

There were mixed results in the previous studies regarding the relationship between executive compensation and firm market value. Some researchers concluded that the higher executive compensation may reduce firm resources, leading to lower market value. According to equity theory, excessive executive compensation may lower the motivation of investors in buying a firm stock. However, some scholars found that the higher compensation can be used to motivate experienced managers, leading to better market value. Others found no relationship between executive compensation and firm market value (Lin, 2010). The results provided a statistical evidence of an insignificant relationship between executive compensation and market value. The expectation was that the excessive executive compensation lowers firm market value, but the findings proved otherwise.

In general, the relationship between all independent variables of corporate governance mechanisms and market value measured by Tobin's q was weak. The

regression results of the relationship between the independent variables and market value indicated that the adjusted R^2 was below 20%. Therefore, I excluded all insignificant variables from the regression model and re-conducted the multiple regression analysis to determine if the amount of variance in the Tobin's q explained by significant independent variable, board size, increased. The regression results showed that no material change of the adjusted $R^{2.}$

In conclusion, the study's findings revealed significant relationships between corporate governance mechanisms and market value. However, board size had a significant but negative relationship with market value, while board committees had a negative and insignificant relationship with market value. Board independence, ownership structure, and executive compensation had insignificant relationships with market value.

Applications to Professional Practice

The main purpose of this study was to enhance the understanding of business leaders on the importance of corporate governance for corporate financial performance and market value of the publicly listed companies in KSA. The findings of the study were consistent with some previous research on the significant relationship between some of corporate governance mechanisms and both corporate financial performance and market value, showing significant, negative, and insignificant relationships as discussed earlier. Also, the findings provided evidence contrary to the other previous studies.

The findings of the study may help business leaders know which corporate governance mechanisms affect their firms' success and growth. This understanding may inspire business leaders to comply with the rules and regulations of corporate governance. Also, the legislators may capitalize on the findings in identifying the corporate governance mechanisms that can enhance country's economic growth. The study provides an important knowledge for researchers, regulators, and investors to enhance investment return, financial performance, and market value, as well as mitigate corporate failures. These findings could reduce investment risk and increase investor confidence in the companies' performance. The findings can help shareholders invest in firms that adopt and exercise the best practices of corporate governance. The investors will properly and efficiently allocate the raised and investable funds to the more compliant firms, resulting in better ROA, ROE, and Tobin's q. Thus, the non-compliant companies to good corporate governance practices would find difficulties to raise capital in stock markets and financial institutions. Therefore, boards of directors and executives are enforced to comply and adopt the best practices of corporate governance to effectively use corporate assets and mitigate conflicts of interest among different stakeholders. That is, the compliance could help companies raise the fund required for operation and expansion (Bonna, 2011).

Most studies revealed that the corporate governance is an important factor for the overall growth of the firm performance, as well as the country's economy. However, the findings of some research on the relationships between corporate governance and firm

performance and market value are mixed. Business leaders want more clear evidences with respect to these relationships, which is the main responsibility of researchers. The findings of this study represent a unique added value and benefits for business leaders and investors, especially those working and investing in Saudi stock market, because this research is one of the few studies examining the relationship between corporate governance mechanisms and firm performance in terms of corporate financial performance and market value in KSA.

Implications for Social Change

Because of the significance of the relationship between corporate governance and corporate performance as discussed earlier, the implications of this study for social change became more understandable and much clearer. This significance creates a place for social change within a society. If the business leaders understood that the more adherence to corporate governance, the better financial performance and market value, they may increase their compliance to corporate governance.

The business leaders that endeavor to improve their firms' financial performance and market value without negatively affecting the different stakeholders, a positive and significant correlation will attract and retain experienced managers and employees, as well as capture potential investors, leading to a better society. Thus, this study supports a need for more compliance by business leaders to corporate governance rules and regulations for creating more positive and significant impact on beneficiaries such as suppliers, customers, employees, and community as a whole. Therefore, through this

study, I urge business leaders, regulators, investors, and other stakeholders to work together to create a better community.

Along with commercial activities in decision making, I encourage business leaders to consider the benefits of communities and society in which they work. This change in business leaders' decisions result in economic benefits and social change such as better firm performance, developing capital market, and increasing employees' job satisfaction and job security. Thus, the compliance to corporate governance by business leaders as clarified in this study has implications help build confidence in Saudi Capital Market, and improve the lives of stakeholders and community in general, leading to positive social change. Therefore, the findings and knowledge of this study may contribute to social change by motivating and encouraging business leaders to increase their compliance to the best practice of corporate governance, leading to better performance. In return, the enhancement of firm performance could positively affect the community and create some social benefits such as improvements in the lives of employees, suppliers, customers, investors, and community in general.

In this study, the researcher stressed that a lot of benefits associated with sound corporate governance practices for society and business. The knowledge and findings of this study may result in a lot of benefits for community as well as investors and firms. The benefits of the community or society include fighting corruption, encouraging more investments, and developing capital markets. The benefits for firms and investors include decreasing cost of capital, improving firms' financial and non-financial performance, enhancing firms' reputations, impacting positively shareholders' values, and lowering the

risk. From more macro perspective, the implementation of knowledge and findings of this study could affect a country's financial stability, leading to economic growth. Sustainability issue has become the vital factor for shareholders in making their investment decisions. Sustainable development is built on sound corporate governance, which balances between the economic growth and social pillars.

Recommendations for Action

The purpose of this quantitative correlational study was to investigate the relationship between corporate governance mechanisms and (a) financial performance and (b) market value in KSA. Some corporate governance scholars called for small board sizes, more board independence, increase the number of board committees, increase ownership stakes in hands of board members, and excessive executive compensation. Similarly, some shareholders and legislators advocated for large board size, decrease the number of board committees, greater concentration ownership stakes in hands of board members, and less executive compensation. However, the findings of this study were contrary to some of above assertions.

The findings provided that board size had positive relationships with financial performance and market value. Board size is an important corporate governance mechanism that could mitigate an agency problem. Board size is considered an important factor of the effectiveness of corporate governance (Shin-Ping & Hui-Ju, 2011). The findings proved that larger board size result in better financial performance. I recommend that corporate governance regulators and organizers in Saudi stock market

encourage and urge publicly firms to increase the number of their board directors to at least eight members, which is the average board size of the sampled firms of this study. A larger board size may provide better management supervision, access to more resources and financial funds, and more experienced members, leading to better financial results.

The findings provided evidence that excessive executive compensation increases financial performance, although there was no evidence about the impact of executive compensation on market value. I recommend that firms can use compensation schemes for rewarding corporate executives financially to align firm interests with shareholder and other stakeholders' interests. These schemes should link levels of benefits and executive compensation to corporate financial performance and market value. The big portion of executive compensation must be "locked" in for a period above five years and based upon the firm achievement in the long-term rather than the short-term performance.

The findings evidenced that board independence had a negative relationship with ROA, but it had no relationship with both ROE and Tobin's q, which is opposite of the findings of some previous studies. Board independence improves efficient and effective control on firm executives; the more board independence, the better firm performance. Also, the increase of board independence guarantees more integrity of financial statements, which reduces threat of bankruptcy and financial distress of firms. Consistent with the most previous studies' results and contrary to the study's findings, I recommend

that Stock Market Authority encourage firms to hire a larger portion of independent board members to monitor firms' activities.

Board committees ensure that corporate executives behave in the best interest of the stakeholders. The findings of this study revealed that the number of board committees had an insignificant relationship with financial performance and market value. Based on literature review and experience, I recommend that Saudi firms should reduce the number of board committees to a maximum of three. These committees are executive committee, nomination and remuneration committee, and audit committee. Each corporation should have its own corporate governance setting out clear responsibilities of each committee to prevent duplication of duties and avoid improper coordination among committees, leading to efficient decisions. Responsibilities also should be broad of each committee to contain related areas. For example, an executive committee can perform other functions, such as capital investment functions and strategic planning. Furthermore, nomination and remuneration committee, and executive committee should have at least one experienced member in their related area like audit committee.

The last recommendation is that regulators should enact acts set forth stiff penalties for noncompliance to corporate governance. The acts set forth harsh penalties for both companies, and their officers and directors for noncompliance. Given the demand for better corporate governance, defining good corporate governance to

encourage and enforce them to make decisions in the best interest of the stakeholders. These acts will balance the power between firms and stakeholders.

The parties should pay attention and capitalize on the findings of this study are, but not limited to, academic researchers, regulatory bodies, business leaders, board of directors, CEOs, CFOs, financial analysts, experts in the area of corporate governance, and so forth. I will disseminate the results of this study through finance and accounting periodicals, professional conferences and workshops, as well as informational meetings with community forums and key decision makers. I will also publish the entire study in ProQuest/UMI dissertation database.

Recommendations for Further Study

This research is one of the few researches investigating the relationship between corporate governance and corporate financial performance and market value in KSA. As discussed in previous sections, such as Applications to Professional Practice and Recommendations for Action sections, the findings of this study were contrary to some of previous studies and consistent with the others. This study has some limitations; which can be avoided by the future studies.

The study used the available existing data, rather than primary data. The available secondary data could be a potential source of errors, which may preclude the results to be generalized to all population. Future studies can collect primary data through interviews and surveys or making the necessary adjustments or recalculation to corporate financial reports. The adjustments or recalculation to corporate financial

reports to standardize accounting methods and practices may result in different components in the financial statements, and consequently different results.

This study used ROA, ROE, and Tobin's q, which are accounting measures, for measuring financial performance and market value. Scholars do not concur on specific measures assessing corporate financial performance and market value. Future studies can use market-based measures of financial performance and market value, such as economic value added, equity prices, market value added. These measures may change the research findings.

The focus of this study is on the internal processes of a company, rather than external factors. The external factors play a significant role in firm performance. Interest rate policy, foreign exchange, macro economy, inflation, and other external factors may have a significant impact on firm financial performance and market value. Future studies can use the external factors instead of the internal process of a company for investigating their impact on financial performance and market value.

I only used five corporate governance mechanisms, which are (a) board size, (b) board independence, (c) board committees, (d) ownership structure, (e) and executive compensation in the current study. Future studies can use different mechanisms, such as leverage, voting rights, dividend policies, takeover defenses, and number of board meetings. Most of these mechanisms did not receive much focus and attention by contemporary corporate governance researches and literature. Using different corporate governance mechanisms may provide different findings.

Reflections

I work as CFO for one of the biggest publicly listed companies in KSA. As a practitioner in corporate governance field, I examined the relationship between the corporate governance and financial performance and market value with preconceived belief that corporate governance mechanisms are significantly and positively affect both financial performance and market value. I used secondary data in the current study; thereby my previous belief did not influence the findings. The findings of this study revealed that some corporate governance mechanisms, not all, play a significant role in firm performance.

In this study, no human participants were involved; thereby researcher had no any possible effects on the participants. The DBA journey helped me to gain a new knowledge and experience of different processes and techniques involved in conducting this study. The findings of this study helped me to have an open mind with respect to the importance of the relationship between corporate governance and both financial performance and market value. Also, the findings of this study motivated me and create an interest in conducting further research in the field of corporate governance considering different sample, different corporate governance mechanisms, and different statistical techniques to help improve business performance and environment.

Conclusion

The goal of this study was to identify if significant relationships existed between corporate governance and corporate financial performance and market value in KSA's 116 companies for the time period 2010 to 2014. The independent variables were (a)

board size, (b) board independence, (c) board committees, (d) shareholding ownership structure, and (e) executive compensation, while the dependent variables are corporate financial performance and market value. Standard multiple regression was used to test these relationships.

The findings revealed that corporate governance has a significant role in improving firm performance. The results indicated that leaders should consider good and robust governance in the areas of mechanisms of larger board size, excessive executive compensation, minimal number of board committees to improve corporate financial performance. However, the findings revealed that smaller board size and greater board independence may weaken financial performance. Larger board size and greater number of board committees negatively affect market value. The negative relationship between board independence and corporate financial performance is surprising result and contrary to the findings of some previous studies. Other corporate governance mechanisms considered by the study had insignificant relationships with financial performance and market value.

In conclusion, the study findings regarding the relationships between the individual corporate governance mechanisms and firm performance in terms of financial performance and market value are divided into three groups: (a) the significant relationships, (b) the negative or inverse relationships, and (c) the non-significant relationships. For the first group, board size and executive compensation had significant relationships with financial performance measured by ROA and ROE. For the second

group, which related to the negative relationships, board independence had inverse relationships with both ROA and ROE, while board size and board committees had inverse relationships with market value measured by Tobin's q. For the third group, board committees and ownership structure had insignificant relationships with financial performance, while board independence, ownership structure, and executive compensation had insignificant relationships with the market value.

Based on the literature review presented in Section 1and the findings of this study, my recommendations are (a) publicly listed firms should increase the number of their board directors to at least eight members, (b) firms should use long-term compensation schemes for rewarding corporate executives financially to align firm interests with shareholder and other stakeholders' interests, (c) Stock Market Authority should pass a law enforcing companies to hire a larger portion of independent board members to monitor companies' activities, and (d) in general, regulators should enact acts set forth harsh penalties for firms and business leaders for noncompliance to corporate governance. The implementation of these recommendations may improve financial performance and market value, and creates a positive business environment and social change via building a confidence in stock markets. In return, this would enhance the wealth of stockholders and country's stability. The results indicate a need for further studies in corporate governance field, using primary data rather than secondary data, market-based measures of financial performance and market value, external factors,

rather than the internal processes of a firm, and different corporate governance mechanisms.

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Appendix A: List of Sampled Companies

Serial	Name	Code No.
1	Al Asmak	6050
2	Al Maraie	2280
3	Aljouf Agriculture	6070
4	Anaam International Holding Co	4061
5	Halwani Bros	6001
6	Jazan Development Co	6090
7	Nadec	6010
8	Qassim Agriculture Co	6020
9	Savola Group	2050
10	Sharqia Development Co	6060
11	Tadco	6040
12	Wafrah	2100
13	Al-Babtin Power & Telecom.	2320
14	Al-Zamil Industrial Ivestment	2240
15	Amiantit	2160
16	Arabian Pipe	2200
17	Middle East Especialized Cables	2370
18	National Gypsum	2090
19	Red See Housing Services	4230
20	Saudi Cables Company	2110
21	Saudi Ceramic	2040
22	Saudi Industrial Development	2130
23	Saudi Steel Pipe	1320
24	Saudi Vertified Clay Pipe	2360
25	AL-Jouf Cement Co.	3091
26	Arabian Cement Co	3010
27	Eastern Province Cement Co.	3080
28	Saudi Cement Company.	3030
29	Southern Province Cement Co.	3050
30	Tabuk Cement Co.	3090
31	The Qassim Cement Co	3040
32	Yamama Cement Company	3020
33	Yanbu Cement Co.	3060
34	Al Abdullatif For Industrial Investment	2340
35	Al Hassan Ghazi Co	1214
36	Alsorayai	1213
37	Astra Industries	1212
38	Basic Chemical Industries	1210
39	Fipco	2180
40	National Glass Industrial Co	2150
41	National Metals Manufacturing & Casting Co	2220
42	Saudi Arabian Mining Company	1211
43	Saudi Chemical Co	2230
44	Saudi Industrial Export Co	4140
45	Saudi Paper Manufacturing	2300
46	Spimaco Addwaeih	2070
47	Mobaily	7020
48	STC	7010
49	Zain	7030
50	Al-Ahsa Development	2140
51	Al-Baha Investment & Development	4130
52	Aseer Company	4080
53	Kingdom Holding	4280

54	Masafi Saudi Arabia	2030
55	Saudi Advanced Industries	2120
56	Saudi Industrial Services	2190
57	Advanced Petrochemical	2330
58	Allogeen	2170
59	Methanol Chemicals Company	2001
60	Nama Chemicals	2210
61	National Industrial Company	2060
62	Petro Rabigh	2380
63	Petrochem	2002
64	Sabic	2010
65	Safco	2020
66	Sahara Petrochem	2260
67	Saic	2120
68	Saudi Kayan	2350
69	Siig	2250
70	Sipchem	2310
71	Yansab	2290
72	Gasco	2080
73	Saudi Printing & Packing Co.	4270
74	Saudi Research & Marketing Group	4210
75	Dar Al-Arkan For Real Estate Development	4300
76	Riyadh For Development (Tameer)	4150
77	Saudi Real Estate (AL-AKARIA)	4020
78	Taiba Holding	4090
79	Al Khaleej Training & Education	4290
80	Aldress	4200
81	Alfetahy Group	4180
82	Jarir Marketing Co.	4190
83	Mouwasat Medical Services	4002
84	Othaim	4001
85	Sasco	4050
86	Thimar	4007
87	Saudi Hotels And Resorts - Door Hospitality	4010
88	Tourism Enterprises Co.	4170
89	Saptco	4040
90	Saudi Transport & Investment Co.	4110
91	The National Shipping Co. Of Saudi Arabia	4030